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# THE PSYCHOLOGY OF MENTAL DISORDERS



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# THE PSYCHOLOGY OF MENTAL DISORDERS

BY
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# PREFACE

THERE is a curious reticence on the part of those engaged in the active care and treatment of the insane to speak to the public with any detail about the mental diseases. There have been many books published on nervousness, most of them written to help the nervously sick, and all of them conveying the impression that those minor mental states were not so much illness as false points of view, due to wrong methods of living, and the like. The graver mental diseases have been entirely neglected, and so there is in the community an appalling amount of ignorance concerning these diseases. Even amongst men and women who are cultured, who can speak with some degree of assurance about vitamins, tuberculosis, and who are not afraid to venture into a discussion of the infectious diseases, there is only the vaguest knowledge of what constitutes mental disease. Either the subject is a source of shuddering humor, or else it is entirely neglected.

But one cannot wipe out disease with mere hopeful counsel or with an ostrich-like neglect of fact. The mental diseases constitute one of the major problems of society, not only from the standpoint of medicine, but from that of eugenics, economics, industry, crime, and all kinds of social relationships. So, it is without any apology that, in this book, I speak of hallucinations and delusions as other men speak of cough, shortness of breath, and kindred physical symptoms; so it is without reserve that I bring to the public which will read this book the names and significance of specific mental diseases, and also speak in some detail of the causes of these diseases.

This book flows out of experience, and not out of theory or speculation, although I respect these excursions of the human mind and have, to some extent, indulged in them in this book, always, however, labeling them as such. The clinical experience out of which this book is written includes a good deal of residence in hospitals for mental diseases and an everyday contact with them in community practice. The chapter on Heredity is the result of a research which was conducted for the Commonwealth of Massachusetts on the subject of the Inheritance of Mental Diseases and Feeble-mindedness, and has, in part, already been published in scientific journals. chapter on crime comes from an acquaintance with men and women incarcerated in jails and states prisons. This experience was gained as an official examiner for the Commonwealth of Massachusetts in a research which is at present going on, the purpose of which is to ascertain the mental state of those convicted of crime.

Thus, the book represents an attempt to grasp the realities of mental disease. It is written with some respect for tradition, but with much more respect for fact. It is written in the belief that what mankind needs is not so much that most prevalent wish fulfillment, "cheerio" optimism, but rather a definite acquaintance with specific situations. In other words, it is not a book of propaganda, but a book which seeks to stimulate intelligent, non-professional interest in a serious subject, and thus make it possible for society to grapple more resolutely with the problems of the mental diseases.

# THE PSYCHOLOGY OF MENTAL DISORDERS

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It is one of the curious by-products of the comic spirit that it finds one of its most prolific themes in insanity. Everywhere on the stage and in the little comic byplays of every-day speech and act which enliven the folk life, the supposed conduct and speech of the insane man is a source of never-failing merriment. This is in striking contrast with the attitude toward the so-called physical diseases. No comedian of the stage or of private life can raise a laugh with the comic portrayal of cancer or of heart disease, though the grotesque portrayal of the tragedy of mental diseases has given more than one clown a reputa-It is probable that this curious reaction toward the mentally sick arises in part, at least, from the fact that our sense of superiority is heightened in their presence, while sympathy for them is, for the majority of people, neither fundamentally nor intensely aroused. We cannot deride where we greatly pity, and it is only in the last hundred years that any gentle emotion

has been aroused by the insane. For untold centuries, they were confined and tormented, thrown into dungeons, chained and shackled, and much of the same attitude taken toward the criminal was manifested toward them.

The prevailing ignorance concerning mental disease shows itself everywhere throughout society, in the speech and thought of the learned, as well as in that of the ignorant. It harks back to the "lunatic" notion, to wit, that the unfortunates were moonstruck; it is descended from the notions that they were obsessed by demons and ghosts, that they were being punished for sins of commission or omission. This ancient consideration of mental disease was thus joined to religion and morality, an unfortunate union for the proper understanding of disease. In its more modern form, this ignorance reflects itself in the belief that mishap in love and business brings about insanity, or that fear and humiliation produce it, or what is not openly stated, but is avidly whispered behind the horrified hand, that solitary vice, self-abuse, and the kindred sexual perversions have destroyed the reason. And in the newer literature which revolts against the conventions, the insane man is the poet or the genius who has dared to fight life, or who sees it too clearly and falls; he is a madman, who speaks and sees truth, and whose crucifixion because of his enlightenment is on the cross of insanity.

The publicity given to the physical diseases has, in large part, done away with many of the misconceptions regarding such matters as diet, infectious diseases, tuberculosis, cancer, and the like. Partly because psychiatry as a branch of medicine has not achieved the scientific status of the other specialties, partly because the treatment of mental diseases is far from satisfactory, the program called mental hygiene has lagged behind in results and in organization, though much valiant work is being done in this direction. It is the province of this book to dispel, in so far as I am capable of doing so, some of the popular ignorance on this subject. The position taken will, in large measure, be personal, in that some statements made will be at variance with those of other writers. In larger measure, it will, I hope, conform to the opinion of those psychiatrists who seek to progress without substituting hope and opinion for fact. The problems of psychiatry are very dark indeed, both in the nature of the disorders and in the light science throws upon them. Light is, however, entering into our conceptions of the mental diseases, and in our treatment of them. The men and women who are struggling to solve these problems need an enlightened and sympathetic public opinion which will enable them to finance and extend their researches.

Without going in detail into the magnitude of the problem of mental diseases, it suffices to say that in

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the Commonwealth of Massachusetts about eight million dollars is being spent yearly on the public care of the insane; that this represents about 16c of every dollar which the Commonwealth raises for all purposes; that 22,500 people are confined in the institutions for the insane, the epileptic, and the feeble-minded. I do not cite the figures for the whole country, for the simple reason that many communities are very backward in their care of the mentally sick, and in most states insufficient care is given. The expenditure of the Commonwealth of Massachusetts represents what might be called an enlightened expenditure, at least comparatively speaking. This enormous expense and the heartbreak represented by 22,500 inmates is but a small portion of the problem, since there is in the community at all times far more mental disease than is represented by hospital commitment. Especially is this true in the case of epilepsy and feeble-mindedness. Only the extreme cases of these conditions, or those cases which represent definite social problems, reach the institutions. Furthermore, it does not take into account at all the enormous amount of minor mental diseases, a term which I am here applying to those conditions called nervousness, neurasthenia, hysteria, etc. It will, perhaps, shock some of those who have gone through a "nervous breakdown" to be classed with the mentally sick. It is part of the intention of this book to show that insanity and mental

sickness are not at all synonymous terms, and that neurasthenia and the like conditions represent minor mental diseases, though by no means contributing to the insane population.

The vastness of the problem is best illustrated by the experience of the Veterans Bureau, and I am here citing some figures taken from the experience of the Boston office of the Veterans Bureau as a representative set of statistics. In considering these figures, it is necessary to understand that individuals who volunteered or were drafted in the army service represented the ostensibly normal persons, and in a period of life which contributes only a part of the mental diseases. It will be seen at once that psychiatric problems constitute one of the most formidable problems of the army, and thus may be said to constitute one of the most formidable problems of society, since the army, during the War, was the young masculine part of our American society. I cite some figures which are entirely representative:

- 1. Of all cases coming to the attention of the Boston district of the Veterans Bureau, about one-third represent nervous or mental disturbances. These cases constitute the most important single group in view of their difficulty in handling and their chronicity.
- 2. Of the 14,000 men classed as the neuropsychiatric cases, about 2100 were adjudged insane, 300 had

epilepsy, 500 were feeble-minded—these constituting what we shall call the major mental disorders. 8200 had the minor mental disorders, *i.e.*, neurasthenia, hysteria, etc. The remainder of the cases classed as neuropsychiatric belonged to a variety of technical classes which will not be discussed here.

# Fundamental Concepts of Psychiatry:

There are two fundamental concepts which will serve as a starting point for the consideration of mental diseases. First, mind is a function of the organism, only artificially to be separated from its other functions. Thus, there is no fundamental difference, in so far as the psychiatrist is concerned, between the manifestations called psychological and the manifestations called physical. Second, psychiatry deals with a group of diverse conditions called mental diseases, and the term insanity represents a useless fusion of conditions not at all necessarily alike in origin or course, and is fundamentally legal rather than medical in its origin and value.

The first of these attitudes, namely that mind is a function of the organism, does not quarrel with any religious or metaphysical ideas which make mind a totally separate matter. It accepts rather simple tests of proof. It asserts that disease of the brain causes disease of the mind in that injury to the brain causes changes in thinking, feeling, doing, and in that

conglomeration of things called personality. It rests upon the fact that the glands of internal secretion, if they do not cause mentality, direct, regulate, and govern the methods of expression both of mentality and personality. It draws its proof from the fact that a drunken man is different from a sober man, different in all the essentials of personality and of mentality. It gathers added impetus from the common, every-day observation that a cup of coffee may bring hope where there is depression, add courage where there is fear. It cites the extraordinary use of intoxicants and stimulants of all kinds by mankind from time immemorial, and in every age and climate, to alter ways of thinking, feeling, and doing; that is, to alter mentality. It illustrates this thesis by the way fatigue temporarily, yet fundamentally, alters the attitude toward life, toward society, and the individual himself. It points out that there is a very significantly similar evolution of bodily and mental development. The evolution from helpless infancy through lusty maturity to decrepit old age runs the same course in regard to body and mind. There is the same extreme plasticity in childhood, there is a similar gain in power, though loss of plasticity, in maturity by the establishment of organized habits and reflexes, and bodily old age resembles mental old age in the increased rigidity which physically shows itself in the stiffened face, stiffened bones, stiffened

arteries, and mentally shows itself by the disappearance of the power to adjust in a fine and plastic way to new situations and experiences. Death is the final immobility, but life itself is manifested by an increasing immobility in all qualities. It is as if the pressure of time finally destroys the movements of body and mind.

This thesis in no sense quarrels with the belief that mental experiences may alter personality. In fact, it is prepared to go further and say that just as so-called bodily experiences alter mind, so mental experiences thange bodily structures. It sees no differences between the experiences taken in through the eyes and ears as words, and those experiences which flow into the organism by the nose or the mouth or the skin, whether as air, food, or toxic product.

It needs no especial argument nowadays, to prove that emotion is in part a huge physical event, and that every memory is based fundamentally upon some changes which the environment produces in the brain or in some nervous or physical structure somewhere in the body. I do not explain the nature of consciousness, I simply state that consciousness depends, apparently, upon the condition of the organism for its manifestations. A whiff of ether will abolish it, and so will a blow on the head; alcohol will change it, and fatigue each day alters it into that state which we call sleep. This theory does not explain away the

mystery of thought, but it does say that definite physical sickness causes definite alterations in the nature of the thought processes; that foodstuffs and chemical substances can abolish or alter thought; that as time goes on and the physical structure of the organism alters, thought changes in perfectly characteristic fashion, a change which may be predicted safely in the case of the vast majority of mankind. Withal, this conception of psychiatry is not to be miscalled materialistic; it is organistic. It simply asserts that amongst the manifestations of life are those manifestations we call mental, and that, broadly speaking, they rest on an organic basis, and represent an interaction between the organic environment and that organic fragment we call the individual.

That this generalization will be characterized by some as a naïve, over-simplification, I readily concede. Indeed, when I consider the wide range of theories concerning mind, and especially how divergent are the views of equally eminent thinkers, the hypothesis that mind is a function of the organism seems distressingly jejune. There are the mechanists who, like Loeb, reduce all life, including mind, to physiochemical phenomena, and picture the intellect as essentially due to motions or changes in motion occurring in colloidal substances. Consciousness becomes an epiphenomenon of no especial importance; in other words, the values of our existence are the mere smoke of organic com-

bustion. Jennings builds up all life, including mind, in the configurations of matter and energy, and tells us that we are to seek the cause of all action in preceding configurations of matter and energy. For Lloyd Morgan, mind is a "universal correlate of matter", or, as Eldridge verses this view, "does not evolve from matter but with matter." We get onward toward more elaborate doctrines when we consider that many thinkers have considered mind a special form of energy, and there has evolved a doctrine called hylopsychism, according to which all matter "is instinct with something of the cognitive function"; that is, all matter has the possibility of evolving into thinking matter. Then we have the radical empirists, including William James, who state that mind and matter are but differences of empirical relationship among common empirical terms, both being made up of pure experience, whatever that may be! And Woodridge expresses a theory not remarkably different from our working hypothesis when he makes the mind dependent on an essential basis of the body, and states that thinking, like digestion, is a reaction to a world congenial to it. We pass over those idealistic doctrines which reduce all objects in the world (including one's own head!) to dependencies upon the individual consciousness of mind, and hurry on to those theories, like that of Bergson, which start with an original impetus, élan vital, which brings all mind into a common something which, as an attribute of life, penetrates matter, determines evolution, and divides up into intuition and intelligence which are sharply contrasted. We shall not consider those theological-metaphysical concepts of mind which completely separate it from the body, for they are out of the universe of our discourse.

The organic theory here stressed is the working hypothesis of all the fruitful work done in physiology: each year sees it bite off more and more functions as explainable on an organic basis. The organic theory will never explain mind because mind will never be explained, but, for that matter, neither will digestion or anything else. The crowning and critical argument in favor of mind as a function of the organism is the one stressed by Vaihinger, that mind is an instrument of adaptation to the environment, a tool used for survival and in the interests of the other great functions of the organism. Most of the thinking of life is done in the direct interest of the gastrointestinal and genitourinary tracts, and the little of it which is recondite and really abstract need not disturb our working hypothesis.

The second thesis, that the term insanity must be used merely as a term of convenience rather than as a logical and well-based expression of fact, is less controversial and is the present attitude of all psychiatry. Incidentally, it may be stated here at this point, that psychiatrists object to the term "alienist"

as descriptive of their profession, because the term "alien" implies that the mentally sick or insane people are persons remote from the mass of mankind. Psychiatry, and its derivative term psychiatrist, implies that the mentally sick are just exactly that—mentally sick, to be classed with the physically sick, and are fit subjects to receive not only enlightened care and humane consideration as well as the pity we extend to all the unfortunates, but that the subject matter itself is a field for medical research to be carried on in the same manner as all research, and with regard for the same scientific laws which govern the rest of research.

In the earlier stages of medicine, all mental diseases were grouped together because we had no ways of separating them. On the principle that all cats look gray in the dark, all these unknown manifestations of disordered mentality were lumped together under the names lunacy, insanity, and the like. As time went on, clinical knowledge grew more exact, methods of investigation came into being which took this unity, this fused mass of ignorance and superstition, and broke it up into unities of different type and of essentially different origin. Thus, we discovered that certain diseases of the mind were really diseases of the brain, as, for example, the disease called general paresis, and those diseases caused by arterial changes in the structure of the brain. We found that

certain other diseases depended upon the effects of toxic substances upon an otherwise normal brain, as in the case of the alcoholic insanities and the mental states arising in the course of heart disease, blood diseases, pneumonia, etc. Certain mental diseases became related to the study of the glands of internal secretion, as in the case of cretinism and pituitary disorder. Certain other diseases of essentially unknown origin were found to bear some relationship to heredity, a relationship greatly exaggerated, but, nevertheless, in some degree at least, valid. This splitting up of the unknown mass of insanity is still going on, and will occupy the attention of psychiatrists for a very long time, but enough has been done to show that psychiatry, as a term, embraces diseases and conditions of diverse origin, of independent cause, and demanding specialized treatment.

Moreover, the terms mental diseases and insanity are entirely distinct in as important a way as the one just considered. A man may have a mental disease and not be insane in the sense that he is competent to carry on his affairs and to maintain his place in society, and vice versa, people who are not able to carry on their affairs and maintain their place in society may not have mental disease. There exists in the case of many mental diseases a long period in which the individual shows no alterations of mentality or personality sufficient to classify him as insane, and,

also, there are mental diseases such as neurasthenia, hysteria, and the like, in which the patient practically never becomes insane, yet these latter are true mental diseases in that they involve mind in all its manifestations because they affect feeling, thought, and action.

Thus, as a starting point for a more detailed consideration of the subject matter of psychiatry, it is necessary to consider the organism as a whole, to conceive of it as a place where environmental forces of all kinds enter and are reacted to, and that amongst the reactions of the organism in its interplay with the environment is the mental life. There are phases of the mental life which seem almost devoid of the physical, as, for example, abstract thought. On the other hand, there are such manifestations as the instincts and the emotions, which are palpably and clearly grounded on the condition of the organism. But, from the highest to the lowest mental function, there is a grounding in organic structure which makes mind and body fundamentally or pragmatically one. The term mental diseases must be substituted as a collection of widely differing diseases and conditions for the term insanity, which implies a unity in origin and essential nature which is fictitious, and which, further, implies a mental irresponsibility which the bulk of the mentally sick never reach.

I have intimated that we may divide the mental diseases into two groups, the first being that group of major mental diseases which may be called the psychoses (or insanities), and the second being the minor mental diseases, the psychoneuroses. As these two types of mental diseases are to be discussed separately, the major mental diseases have priority.

# Symptoms of the Major Mental Diseases:

To be insane is associated in the public mind with wild conduct or gross disturbance in the intellect. People expect the mentally sick to be tearing their clothing, to be screeching and screaming, attempting the lives of others or their own, or else they are surprised when a patient declared to be committable to an institution for mental diseases can talk coherently, is polite and well mannered. Departure from normality may take what is, practically speaking, a single direction, leaving most of the mentality apparently intact, though involving a large enough segment of mind to unfit the individual for a free existence. From this, one goes by continuous transition to those cases where

the whole mentality crumbles into a chaos scarcely human.

Theoretically, it is futile to divide the mind into compartments, since one cannot separate (for example) remembering from judging, or feeling from conduct. But practically, we must divide and classify even if it is recognized that such a proceeding produces some degree of unreality. So with the symptoms of the mental diseases. While it is recognized that mind shades off from what we call normal to what we call abnormal by an insensible gradation, yet certain changes become prominent enough and isolated enough to be discussed as symptoms.

It is important to note that when the personality breaks down through disease, the symptoms become pitiably poor in originality and are stereotyped. Men of diverse temperaments develop the same delusions, the same mood, the same disorder of intelligence when once the organism of syphilis invades their brain, just as the deterioration of old age results in fragmented individuals with the same irritability, suspicion, childish egoism, and failure of memory. Originality and individuality of development disappear with the ravages of mental disease, and the experienced can more easily anticipate the beliefs, motives and conduct of the insane than of the sane.

### Hallucinations:

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The world flows into us via our senses, and sensa-

tions become elaborated into perceptions. These in turn are preserved in some mysterious way as memories which conserve our past contacts with our environment, and guide us in our conduct and in our plans for a future. This current of the external world into the mind is curiously reversed in the hallucinations, so that the mind throws into the environment its own products, and perceives them as outer realities. How this is done, how a man hears voices talking to him when there is no one present, how he sees all kinds of things which to others have no existence, is a mystery, but one concerning which some shrewd observations have been made.

It is well established that disease of the organs which receive impressions and stimulii from the teeming world produces hallucinations of the sensory type the organ normally deals with. Thus, disease of the inner ear gives rise to the sound of bells, whistles, horns, and sometimes singing and vague voices. Also, when there is a lesion in the nervous centres of the brain dealing with hearing, as the parietal lobe, hallucinations of hearing are often present. Similarly, disease of the optic nerve, or of the occipital lobe of the brain, produces projected images, people, things, flashes of light; in other words, visual hallucinations. In chronic affections of the upper mucous membrane of the nose, the patient is afflicted with disconcerting smells.—olfactory hallucinations. And so with taste;

even the skin gives rise to hallucinations of touch and pressure as if from some outside agency, when the lesion is actually inside the spinal cord. A classical example is in the disease, Locomotor Ataxia, when a patient feels as if somebody stuck a pin in his leg, though the disease process involves sensory fibres in the spinal cord.

The explanation applies only to a small part of hallucinations. Most hallucinations originate in what seems to be a disintegration of those cohesive relations by which we perceive our thoughts to be our own, by which we divide what goes on in our own heads from what goes on outside of them. Something of this is experienced when while expecting ourselves to be called, we hear our name. But more relevant is that state of divided self experienced in the heat of an inner debate when the yeas and navs of the situation range themselves almost as separate and hostile personalities. In one hallucinatory state caused by alcohol, the voices at first closely resemble the voice of conscience, and are just the kind of thing the patient has been saying to himself, "You are no good", "a drunken bum", "stop drinking", "you ought to be killed", etc.

This is merely a tentative explanation of the origin of hallucinations. However they arise, they constitute the most colorful of the symptoms of mental disease. God's voice talks frequently to the insane, He counsels or threatens, and there are enough people who hear the Deity in the insane hospitals to furnish the basis for a myriad new religions. Enemies talk about one, strangers mock and deride, and the walls, if they have not ears, have voices to the mentally sick. Vision is not neglected, and the inner images are projected outward, so that enemies are seen lurking, the temptations of sex get visual form, God and the Devil appear as they are traditionally embodied—fleeting forms, steadfast forms, these and many other visual hallucinations weave in and out of the psychoses. And there are hallucinations of smell, taste, and touch.

Sometimes the hallucinations affect the victim like a rapidly moving landscape does the traveler; he becomes absorbed by them, but does not act in response to them. In other cases, the most extraordinary conduct results. Crimes of violence have followed the taunts, the insults, and the threats of the hallucinations of hearing, and one sees in the asylums all kinds of emotional and volitional responses to hallucinations, from cringing fear to desperate anger, from loud and obscene replies to the most belligerent conduct.

Delusions:

As interesting as the hallucinations which falsify the world in which the patient lives, are the false beliefs, or delusions, by which his mind reacts to the world around him. Here we approach the most difficult of questions, for we have no established criteria of the truth of belief. What is a normal belief to one group of people, or to one generation, is a delusion to another group or another generation. Pilate's jesting, but deeply significant question, "What is truth?", has come down the ages unanswered. Thus, in the matter of religious belief, the Catholic would say that the orthodox Jew has false beliefs; to the Mahometan, all Christians are false believers or deluded, and to the agnostic, the idol worshipper, the Christian, Jew, Mahometan, all alike live on the same plane of delusion.

Our judgment of the attitudes of the people of our environment depends on so many factors that it is impossible to say whether we estimate them correctly or not, and in reality we have no final way of reaching a scientific or true conclusion. Thus, a person is one man to his equals, another to his inferiors, and still another to his superiors. And our own inner mood determines whether we shall consider a word or an act as an insult or an injury quite as much as the nature of the word or act itself. When we are sensitized by misfortunes, it seems as if the smiles of our neighbors, which may be entirely innocent of malice. are in reality sneers. The man in high spirits tends to regard the world as rosy and its people friendly because of his health and success, but life tends to be regarded as black and hostile by the man depressed by sickness and failure.

If a Louisiana negro believes in Voodoo, witchcraft, and the like, we do not say he has delusions in the sense implied in mental disease, but if a Harvard professor, to take the presumed opposite in culture, were to begin to believe in diabolical influences, we would properly presume that he was insane. If a Mussolini believes that Anarchists, Socialists, and Masons plot against his life, there is no reason to incarcerate him in a hospital, even if he is incorrect. But if an obscure citizen commences to see everywhere organized international groups plotting against his life, the chances are a thousand to one that he is insane. In other words, a belief about one's self and others is within or without the realm of the normal only if measured by the cultural, economic, and social status of the believer, and by the beliefs and mores of his times and his group.

Delusions, or insane beliefs, which are among the most common symptoms of the major mental diseases, may range the scope of human belief, but when all is said and done, fall very readily in classes and embrace but a few themes. However delusions arise, whether in association with hallucinations or separate from them in association with some deep alteration in mood, they run in groups which one can often predict as existing in the mind of a patient. Thus, when the mood is depressed, the delusions of fear arise and, especially, the delusions of a lowered ego-valuation.

The patient declares himself about to be killed or put in prison, his family is to be thrown into the street or also killed; all is lost, honor, fortune, and security are gone. "I am no good"; "I have sinned the unpardonable sin"; "Hell fire is to be my portion"; "the world is suffering on my account." Or, if the state is of lesser development, "my memory is gone"; "I am slipping"; "I have never done the right thing"; "everybody distrusts and dislikes me, and with reason". Mood picks out of the helter-skelter world the phenomena which are in harmony with it, so that the lowered mood sees only the suicides, the murders, the horrors of every-day life; "I dare not read the papers for I feel with every suicide that I must do the same, or with every murder that I shall kill those I love the most."

And likewise with the much rarer mood of exaltation—life is very rosy to these patients, they express the most exaggerated notions of their qualities and abilities in every sphere, from the spiritual to the sexual. "I am God or Christ", or "the richest man in the world"; "I have the loveliest wives, and I can satisfy a hundred women"; "my children are gorgeous", and I am going to do this, that, or the other thing, from redeeming the world and changing the social system, to maintaining the most expensive harem.

Suspicion as a mood is perhaps the most common

of the delusion-breeding states of mind. The idea of persecution, of hostility on the part of one's fellows. either in organized groups or as unorganized individuals, appears most conspicuously. In its lesser form. it is the delusion of reference—people watch me and talk about me, sneer and laugh at me, slander and revile me. The origin of this seems to be, first, the inner mood of the patient, his feeling of inferiority or fear; second, those reflexes of involuntary attention which we all show by looking at everybody who comes into a room, a car, or a hall, or who passes us as we wait at a street corner; and third, those coincidences of someone laughing as one passes, or two people whispering just as one looks at them. To the feeling of suspicion nothing is coincidental, nothing is irrelevant, nothing is without reference. The world and each event becomes charged with hostile meaning. In the evolution of the delusion of reference, every article in the newspapers, every movie subtitle. becomes a sinister and hidden allusion to the victim.

This feeling of reference merges into the delusion of persecution. Suspicion easily becomes fear and hate, of which it is in fact compounded. The enemies, when the intelligence is good and the personality has not crumbled, operate in more or less rational fashion, and the whole delusional system is in some ways as in true paranoia, possible. When the mental disease involves the memory, judgment, and other intelli-

gence components, then the enemies become devils, animals, spirits, queer creatures, and they poison the food, pour gas into one's room, and do things of a thoroughly fantastic as well as malevolent nature. The paranoid delusions range from that which may seem credible and is indeed believed in by the patient's relatives, to the wildest plot completely removed from possibility. This may be stated of the delusions of persecution, that with the exception of their appearance in a few toxic states such as those produced by alcohol, drugs, and acute illness, they remain permanent and usually grow worse, and that the occasional insane man or woman who commits murder is one beset with the ideas of persecution.

I shall mention but two others of the stock delusions, for it needs re-emphasis that if the normal ideas are stereotyped for the most part, the abnormal are more so. There are the "nihilistic" delusions. seen in the decay of the mind at the turn of life, the involution period, when all things turn to nothingsky, stars, sun, life in its manifold forms, literally or symbolically disappear. There are the somatic delusions, when the body, to the deluded one, has lost its vital parts-heart, lungs, sex organs, brain, bowelswhich seem but a step forward of the hypochondriasism which affects so many. Indeed, all the delusional states can be brought into a kind of place in relation to the common beliefs and attitudes, so that

they appear as huge, unbalanced outgrowths of the latter. Thus the delusion of reference is but the inferiority feeling of the shy cut off from good judgment, the self-accusatory, anxiety-laden delusions of the melancholiac are the introspective self-evaluations of the "blues" increased, the ideas of grandeur are the gay hopes and indomitable plannings of our Micawberish moments, the feeling of persecution haunts all those who are misunderstood and who do not "get a fair show", who feel racial and social discrimination as an ever-present personal affair. And to those who suddenly feel the futility of life and who wonder what reality is, it becomes easy to comprehend the state of mind of those who suffer from the nihilistic delusion and the delusion of unreality. All that this means is that mental diseases do not create beliefs and attitudes, but that they distort already existing ones and detach them from reality.

#### Mood Alterations:

I have spoken several times of the rôle of mood in the creating of belief and in the directing of the thought processes. Mood in the sense of a general feeling of vigor, hope, and pleasure, or of the reverse, arises in part in the chemistry of the organism and, for the rest, in the general reaction of that organism to the situations of life. Some people are, in James's phrase, born with a bottle of champagne to their credit, in that they bubble through life almost unaffected by the vicissitudes of space and time. And there are those unhappy persons whose mood seems irrelevant to life, whose joy is not warranted, and whose hopes and vigor crumble at any adverse touch. The diverse temperaments are fundamentally mood types, and while we are far from any real knowledge of these vital characteristics, we begin to see possibilities in the internal glands, in bio-chemistry, and, with caution, in those studies of human personality which delve in the subconscious.

But I express, perhaps, only a personal belief in the following statement—pathological mood of the type which leads to the insane hospital arises either out of an inborn personality disorder, or else out of disease processes, it does not arise out of "pure" psychological situations, though I am frank to say that I do not know what "pure" psychological situations are.

There are several great pathological mood types found in the major mental diseases:

First, there is the depressed mood, which has its analogue in the normal blues, but which reaches depths of despair almost beyond normal comprehension, expresses itself in delusions of the types mentioned previously, shows itself in a paralysis of mental and physical activities, and finds vent in suicidal attempts.

Second, there is the mood characterized by fear and anxiety, which are generally associated with depres-

sion, but are sometimes independent of it, and which express themselves by a pitiable agitation in word and deed.

Third, there is exaltation, compared to which normal joy is a tepid, tasteless thing, and which is shown in the delusions of grandeur.

Next comes anger and excitement, furor, the true maniacal state leading to the most extraordinary exhibition of activity, to day and night of shrieking activity without rest or sleep.

And last, apathy—a vegetation in mood, a paralysis of inner and outer interest, a saliva-drooling, glassy-eyed absorption in—nothing.

#### Alterations in Thought Processes:

None of the mental symptoms hangs by itself, inasmuch as feeling is the inner reverberation of a perception, action its result in the releasing of mechanism, and thought the swinging to and fro from feeling, perception, and act. Moreover, the intellectual life is only by a forced process unified; memory, judgment, ideation, are mere names for things remembered, things chosen, and things mulled over.

In mental disease memory may go. In the senile diseases the recently experienced disappears before the anciently experienced, in General Paresis there is general disappearance of the memories. The term "dementia" is applied to this disappearance of mem-

ory, together with the impairment of judgment which naturally goes with it. So we have Senile Dementia, Dementia Paralytica, and Dementia Præcox, as some of the types of impaired intellect.

Mental functioning depends on the rapidity of the association of ideas and the power of selecting for attention those ideas relevant to a situation. Thus, if I wish to write an article, all manner of words, phrases, and images crowd into my attention, some of which are relevant to the goal of effort, and some of which are not. When one is under the grip of some mood, the ideas which come into consciousness and the ideas selected are relevant to the mood. Thus, in the depressed state, the production of thought is almost limited to the gloomy ideas; in hopeful states of mind depressing thoughts rarely arise, and are easily disposed of. In distracted states, so-called, that is when the mind is in conflict, goal thinking becomes difficult, and weariness and futility are the results of the struggle.

In depressed mental disease, thought processes, in the sense of the production and selection of images, associations, and goal thinking, become retarded. Coherence may be present, though it too may be lost, but the ideas which are of one mood coloring are slowly manufactured and slowly expressed. In the exhilarated mood, they become hastened, and so hastened that they are expressed without selection and as fast as thought, without inhibition. Here is the so-called "flight of ideas," where dog suggests fog, log, a bog in the moonlight, sun, stars, Gloria Swanson, etc. The ordinary brake on the expression of the vagrant, irrelevant, and obscene thoughts disappears, and these are expressed. Let anyone say whatever comes in his mind as he talks to or watches anyone—let loose on the insults, impatience, irrelevancies, the fluttering obscenities—and he will produce a fine picture of what happens in Manic Depressive insanity.

Thought may become split up so that sequences of the ordinary logical kind disappear, and one cannot trace, or traces with difficulty, the meaning of the patient. It is even possible that meaning in our ordinary sense disappears. Queer disjointed symbolism arises, words are created which resemble in the verbal field what appears as art in the transient offshoots of impressionism. One meets people all the time whose words are vague, whose smiles carry meanings not at all relevant to their words, who leave one baffled and uneasy. Accentuate this, and there is the picture of the "schizophrenic" thinking, of the so-called "autistic" thought processes which Bleuler describes.

## Personality Change:

All the processes above sketched, and much besides, is contained in the phrase "personality alteration." Personality, in the sense of a continuous, more or less

consistent set of attitudes toward self, associates, work, sex, play, and, as manifested in manner, word and act, changes of course from time to time, and in the evolution of character. In mental diseases. changes which may be transitory or permanent become very striking and often are the first symptoms of the evolving psychosis. These changes may be in the direction of further evolution of a preëxisting temperament -as when a person of a previously shy, reserved, and seclusive nature becomes "shut in"; that is, hides, or actively shuns his fellows, or when a person of talkative, restless nature becomes urged into a ceaseless, maniacal, chattering excitement. Or, with the disappearance of control, an apparently new personality springs into existence, as when the cortical changes in the brain of the paretic bring into conduct brutality and coarseness, or when the decay of function in senility makes prominent the curious, extravagant impotences of senile sexuality. In other cases, while the coarse traits of personality remain almost unaltered, the fine traits, those shades of character which represent the finer ethical, esthetic, and intellectual development, disappear and the individual remains like a microscope with its coarse adjustment in good condition, but with finer focusing impossible because of the injury to the fine adjustment. The personality alterations are not to be separated from mood and other alterations, but really represent the sum total of

changes (just as the personality is only a sum total). These alterations may be gradual, sudden, transient, or permanent, may be growth of previous peculiarity or may represent a new phase arising in the unbalance of trends.

It would carry us too far afield to discuss the "personality" question as it rages in psychiatry to-day. Thus, the secluded, inaccessible, stubborn, mystical type, or types, is called the "schizoid" personality, and in disease becomes split up into what is called Schizophrenia. The frank, jolly individual who is given to rapid changes and becomes suddenly elated or depressed, but who is easily understood and whose motives are simple, is called syntomic or cyclothymic. When mentally sick, he suffers from Manic Depressive psychosis.2 But this is all a scheme which has more exceptions than examples, and it becomes an exercise in subtlety to fit temperament and personality to cases. Other writers, with even less justification, relate specific personality types to specific internal glands, using as their basis the fact that these glands undoubtedly do regulate personality to some extent. This is true, but we do not yet know, except in the coarsest types of glandular disease, how and what happens.

Jung has made a great contribution in his emphasis on the direction of attention of the personality. Thus,

<sup>&</sup>lt;sup>1</sup> See page 52.

<sup>&</sup>lt;sup>2</sup> See page 48.

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there is an introverted type which finds its chief source of interest in the self, and to whom outward events are the mere appendages of reality. In contrast to this group is the extroverted type, whose attention is given to outer events and whose energy is expended in the conquest of the environment. When extended, this idea is very fruitful in the understanding it brings of normal personality, but I believe it has much less relevance to psychiatry, except in the general sense that the pathological introverted types appear in the mental diseases, while the pathological extroverts seem to be more liable to crime.

#### III

In that curious repository of old beliefs, in that charming 16th century mingling of wit, wisdom, and learned nonsense, Robert Burton's Anatomy of Melancholy, most of the still extant notions on the causes of mental diseases have their ancestry. Garnished with Latin and Greek quotations which hide what is unprintable in English from all except the scholars and the doggedly prurient, this book of the English cleric could be read to most laymen of to-day without a shock to their scientific knowledge.

# Popular Fallacies as to the Cause of the Major Mental Diseases:

I do not believe I know a single psychiatrist of standing who would be willing to say that overstudy ever caused insanity. The average psychiatrist would be willing to say that an exhausted state might so be caused, and would agree that overstudy was bad and a poor substitute for the gorgeous realities of play and recreation. He would be willing to say that abnormal mental types are found in undue proportion

amongst those who are too slavish in their devotion to learning and marks. The boy or girl who is too conscientious a student, and who does not find in the allurement of sports, friendship, and sex a partial antidote to the grind of high school or college, lacks fundamental instincts, or, at least, is not well-balanced in desires and motives, and so is a potential candidate for mental disease. The excessive study thus marks a type, and is, in this sense, a symptom and not a cause.

And this is true of business reverses and also love in all its normal and abnormal manifestations. Some men do break down mentally after business stresses, but usually this is mere coincidence, and a close study of the most of such cases reveals other causes. During the panic periods there is no noticeable increase in insanity, though there is more suicide. Major mental disease and business misfortune are too common as human afflictions not to come together now and then. The prosperous contribute their full share to the hospitals and sanatoria of the world, and the down-andouter may maintain his sanity despite the humiliation of his lot. And so with the sex life-from love frustrated to the sex perversions, no real proof has been adduced to show that these very common happenings and habits wreck the mind. It is true that abnormal people do abnormal things and react abnormally to the common lot. The normal jilted lover moans, groans, or rages, according to his nature, for a while, then sooner or later "comes back for more", and, in the course of time, marries and puts down his experience as part of the profit and loss of life. And, not to go into the details of sex life, the "good" and "bad" suffer from mental diseases. If the "bad" get infections that wreck them, so the over-good become tangled in the shoals of a repressed life. In truth, psychiatry is not a branch of morals, and mental disease is no more a punishment for immorality than sanity is a reward for saintliness. Indeed, a study of the life of the saints is much more of an excursion into psychiatry than is a study of the life of the great sinners.

When we speak about the causes of the major mental diseases, we must leave out of account the psychoanalytic and psychological points of view. Neither Freud, Jung, or Adler, to mention the great triumvirate who, like their Roman predecessors, once were in amity and are now hopelessly divided, have dealt in sufficient measure with the insanities to give their points of view a validity. Nor is what they have contributed on these matters at all pragmatically recognized in the practical world which deals with the mentally sick. Nor is the psychological point of view, e.g. of Bernard Hart, that mental diseases are psychological situations which must be psychologically studied and treated, anything more than a philosophi-

cal pronunciamento. When a patient has had his skull crushed in and develops a delirium (which is, of course, a mental disorder), neither psychiatrist or surgeon are fundamentally psychological either in their understanding or their treatment of the case. Physical in its cause, they employ physical means. And so psychiatry as a branch of medicine is not psychology, nor is it primarily interested in psychology, though secondarily it is. Primarily, it is interested in ascertaining what may be called the proximate or critical causes of mental diseases, the situation without which the mental disease would not develop. In some diseases we have succeeded in reaching such a cause, in others we are still far from success.

We leave out of consideration, for the present, the minor mental diseases. The main causes of the major mental diseases, definitely established at the present time, may be categorically presented as follows:

## 1. Alcohol and Kindred Drugs.

Somewhere from 8% to 10% of the mental diseases which lead to hospital incarceration (thus excluding mere drunkenness and the very common acute condition called delirium tremens) is due to alcoholic excess. In the United States, the rate had been steadily falling before the advent of prohibition, due, perhaps, to the pressure of the great corporations and the widespread popular education program. In the year following

January 16, 1920, when the prohibition act went into effect, the percentage dropped immediately to less than half the previous year's rate (in Massachusetts, from 7.75% to 3.34%). From that time on, the rate has been rising, at first more rapidly, then more gradually, until at present it is somewhat higher (in Massachusetts) than before the 18th Amendment went into effect (1920, 7.75%; 1925, 8.06%). Whether this rise is due to a natural but temporary reaction against the law, or whether it will continue, cannot be predicted. It seems probable that in the course of time the same factors that caused the alcoholic mental diseases to diminish before the Amendment went into effect will again operate.

It is obvious that alcoholism is detrimental to mental health, however one may view moderate drinking. If one includes in the ravages caused by the excessive use of alcohol the failure in life, the drunken state itself, and the cases of delirium tremens, then alcoholism is one of the major factors to be reckoned with in any program of mental hygiene. Whether there would be less artistic and literary production if alcohol disappeared as a potent factor in human life, I cannot say. The fact that some great artists have been great drinkers proves nothing. All races have sought relief from the harsh realities of existence by the use of some drug. This escape may have advantages out-

<sup>&</sup>lt;sup>1</sup> 1926 figures are not yet available.

weighing the harm it does, but certainly, at the best, alcohol and drugs generally are expensive as forms of relief from the ills of life.

Those familiar with the literature of alcoholism will miss the familiar "psychopathic predisposition" as an explanation of the alcoholic psychoses, that is, the theory which states that it is not the alcohol which causes the mental disease, but it is a predisposition which is released by the alcohol. This is like saving that a bullet does not shatter a door panel, it is the thinness of the panel which is responsible. Nor does it mean much so far as psychopathic predisposition is concerned to point out that of all the alcoholics, only a small percentage develop mental disease. We do not evoke anything psychopathic to explain the idiosyncracies in reaction of certain people to other drugs, and we need not evoke it to explain the mental symptoms of alcoholism. The practical answer is that the alcoholic's mental disease disappears with abstinence, and there is nothing to distinguish him from other people except his reaction to alcohol.

The main types of the mental disorders caused by alcohol are:

First, a delirium comparable to the delirium of the infectious diseases, the very common delirium tremens. In this condition visual and auditory hallucinations of a grotesque type (the colloquial "snakes") are prominent, and there is also a marked intellectual

confusion, so that the patient is disoriented, and completely out of touch with his environment. Together with the profound mental disturbance are serious physical symptoms, tremor, fever, digestive disturbance, and while most patients recover in a short time, some die, especially if improperly treated.

Second, a lesser number develop a mental state marked by hallucinations of hearing and ideas of persecution apparently based on those hallucinations, but with clear consciousness so that they are not out of touch with their environment. Thus they hear voices calling them vile names and threatening them with all kinds of indignities and disasters. Gradually, as the effect of the alcoholic excess wears off, the voices become infrequent, and the shamefaced sufferer laughs at his former beliefs and hates to discuss them. But, for the week, the month, or more, during which they last, they are the realest matters of his life.

Third, a relatively rare disorder, but one of social importance, is the alcoholic paranoia, marked by delusions of infidelity directed toward the wife, and at times reacted to with murderous conduct. As in all paranoia, the insignificant and accidental become weighted with sinister meaning, so that every action of the wife and her accidental contacts with men become proof of her unfaithfulness. It is interesting and relevant to the organic theory of mind to see a man whose mind is as heavily charged with suspicion

as his body is charged with alcohol, become rid of both, pari passu.

Fourth, a demented mental state of long duration, with marked disturbance of memory, judgment, and the finer qualities of intelligence and æsthetics, often associated with actual injury to the peripheral nerves, is Korsakoff's Disease. The patients recover in part, but a permanent damage of greater or lesser degree is left.

# 2. Syphilis.

One of the three venereal diseases is responsible for at least 10% of the admissions to the State Hospitals of the country. Syphilis differs from alcohol in its relationship to mental diseases in some very important respects. (1) The main mental disease which it causes (General Paresis or Dementia Paralytica) is usually progressive, generally incurable, and is ended by death within a few years, whereas most of the mental disturbances caused by alcohol are temporary and disappear with abstinence. (2) Syphilitic mental disease occurs among men and women whose general life has not necessarily been especially notorious or immoral. whose syphilis may represent a youthful indiscretion or even an innocent infection, for after all, syphilis is a disease to be classed with tuberculosis, pneumonia, etc., as caused by an infection, and which, therefore, takes no account of moral laws. Alcohol, on the other

hand, causes mental disease only in the chronic heavy drinker. (3) Syphilis is certainly not on the decline; on the contrary, with each increase in urbanization, with each increase in the mingling of peoples due to the better facilities for traveling, and with each relaxation of the sexual code, syphilis increases. Thus, it is more common in cities than in rural districts, more prevalent where industries and commerce rule, and much more common, to contrast two types of men, amongst commercial travelers, soldiers, and sailors, than amongst clergymen. To make a broader difference, it is three or four times as prevalent among men than amongst women. There is a grim aphorism in medicine which has more truth than most glittering generalities have, "Civilization is syphilization." This phase of our subject will be dealt with later, in considering mental hygiene. At the present, it can be said that each medical generation sees a better understanding of the effects of syphilis, and marks progress in its treatment. Even at the present, there are efficient methods of preventing syphilis which are prevented from being put into use by a prudish indisposition to deal frankly with the realities of sexual relationship.

General Paresis, or as it is officially called, Dementia Paralytica, is the best understood of the mental diseases, and the best illustration of organic change associated with characteristic mental states. The

physical changes of this disease are very characteristic, and this is especially true of the biochemical changes. An examination of the cerebrospinal fluid (the fluid which bathes brain and spinal cord) of such a patient is almost universally conclusive of cause, disease, and indicates the treatment to be used. Furthermore, these changes appear long before the mental signs are in evidence. The mental changes start some ten to thirty years after the syphilis is acquired, and take various forms, but in general run somewhat as follows—First, there are personality changes: that is, loss of control in sexual matters, changes in purpose, judgment, and plan, or alteration in emotional attitude. Here one finds the curious euphoria or sense of well-being, though this is not more common than depression or anger. Then come intellectual alterations, failure in memory and understanding, and finally, the crumbling of these qualities. A common enough tragedy occurring at this stage is the ruin of a fortune or a professional reputation through conduct which seems merely foolish, but is really the symptom of the mental disease. Hallucinations and delusions are common, and especially classical is the delusion of grandeur and importance. Parallel to these changes run physical disturbances, such as tremor, convulsions, and paralyses, though some cases are free of gross disturbances for a long time. The majority of patients die within five years of the onset of mental

symptoms. Underlying all these symptoms are actual changes in the brain of a syphilitic nature, so that a microscopic preparation tells the whole story.

Lately, treatment has begun to show signs of being efficacious. We now know that the chemical treatment of Ehrlich, the famous 606 or Salvarsan, though it has some value, cannot in any real sense cure this disease of the brain, but other treatments, notably the extraordinary use of malaria as a therapeutic agent, are injecting hopefulness into the situation. Since the patient with general paresis is an individual of average worth, who is stricken in the prime of life, and who ordinarily dies within a few years, it can be readily understood that psychiatrists feel themselves spurred to heroic efforts in his behalf.

General Paresis occurs in about 5% of all those who acquire syphilis in the countries of Western civilization. It is stated, on what seems insufficient grounds, that the Oriental peoples, like the Chinese or Japanese, though they have very much syphilis, have little General Paresis. I make brief mention of the grim tragedy, Juvenile General Paresis, where a child with congenital syphilis develops mental disease somewhere between ten and fifteen years of age.

## 3. Organic Disease of the Brain.

The term "organic" in medicine means that some organ is involved in its structure in a way which can

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be studied satisfactorily after death by the postmortem examination, or which can be tested out chemically or microscopically in life. This term is in contrast with the term "functional" which implies that no study during life or after death reveals changes in structure, though very evidently there is something wrong with the working (i.e. function) of a part. The organic diseases of the brain which result in mental diseases (aside from the changes produced by syphilis) are those occurring in late middle life (50-60) and in old age (60 years on), and in the most of cases are due to changes in the arteries of the brain. This cerebral arteriosclerosis (to use the medical term) is in turn due to the causes behind all arterial disease, namely past infection, heart and kidney disease, wrong diet, perhaps alcohol, the wear and tear of life generally speaking, and that natural regression in the capacity of the organs which is a part of the biology of old age. Some idea of the magnitude of this set of factors in producing mental diseases may be obtained from the fact that it contributes about 20-25% of the admissions to the Massachusetts State Hospitals. How far it contributes to the woes of mankind is hinted at in the reflection that the policies of nations. their wars, and their peace treaties, are mainly made by elderly and aged men. Those behind the scenes of life know that cerebral arterial disease and its results in irritability, fixed ideas and habits, jealousies, forgetfulness, and even grosser mental disturbance, are not at all infrequent among those statesmen whose word and whose act hurl millions of their healthy young compatriots out of their useful and happy settings into the hell of war. A periodic mental and physical examination of statemen might be more profitable to mankind than all the peace conferences ever held.

The symptomatology of these organic diseases is fundamentally the breaking down of the mentality, that is, dementia. Judgment, memory, nice æsthetic and ethical reactions disappear. Serious mood and emotional changes are common, but are not so conspicuous as the intellectual disorder. Hallucinations and definite delusions are less important, though often present as more or less incidental symptoms. Everyone has seen these disease processes in those old people who have passed from their estate as productive members of society into a helpless, vegetative mental condition in which a fragmentary past filters into a mind which almost completely disregards the present.

#### Involution Diseases:

An important group of mental diseases, not easily classified are those psychoses of the involution period of life which are not clearly associated with organic disease. The involution period is that downhill stage which sets in the fifties (or in some people, either

somewhat earlier or later), when the organism recedes in the power and elasticity both of mind and body. Naturally the psychological setting of this period of life is a rather anxious or depressing one for the majority of people. In the first place, death commences to loom up as grimly "just around the corner," and the dropping off of contemporaries begins to be felt as a personal menace. In the next place, unless success has already been reached, it will not be reached, and the supplanting by the younger, more vigorous, and more beautiful has already commenced, and becomes an acute injury to the ego of this receding group. Fear of poverty, of illness, of unemployment, of lost prestige, together with jealousy and a demand for attention, become profoundly a part of the psychology of this period of life. It takes little imagination to see how the characteristic mental disease of this period of life, involution melancholia, is marked by extreme anxiety, with the most melancholy delusions—of poverty, disaster, ruin; of hypochondriacal nature, that the body is filled with cancer, syphilis, pus, and offends the nostrils of everybody; and the classical nihilistic delusions appear, that all reality has left the world. and the pale shadows of existence mock the sufferer by their vague resemblance to what has been lost. Most cases of involution melancholia get well, though of the severe cases which reach the asylums, only about 50% recover.

## Paranoia and Pellagra:

I will not discuss in detail the very startling, but infrequent condition, paranoia, in which there slowly evolve ideas of grandeur and persecution, usually without any deterioration of the general mentality. Indeed, some paranoiacs have been the most brilliant of human beings, and he who would write the history of this disease must write the history of organized religion. of great reforms, of great catastrophes, and, in short, of much of human achievement and history. Nor will I detail, to go to another extreme, the disease pellagra, which is endemic in certain parts of southern United States and southern Europe, and which is clearly due to dietary disturbance, in turn due to poverty. This disease illustrates how poor environmental conditions, such as poverty and ignorance, contribute to insanity.

#### Family Mental Diseases:

We come to a group of mental diseases of unknown origin, in that no studies made post mortem or in life have revealed an adequate cause for them. In by far the largest group, we fall back on the statement that something is wrong with the constitutional-temperamental makeup of the persons who suffer from these diseases. Since in the majority of these cases the symptoms show themselves early in life in some form

or other, and are then present either constantly or in periodic attacks for the rest of life, and since in many instances more than one member of the family, either in the same or a preceding generation, is similarly sick, heredity has been invoked as their principal cause. Of the diseases we have previously considered, the alcoholic, syphilitic, and organic brain mental diseases are believed to arise from the environment, from causes operating from the outer world, while the diseases now to be considered are held to be of inner origin, and hereditary constitution is thus set up as a great cause of mental disease.

# Manic Depressive Psychosis:

There are two important psychoses to which the foregoing pertains. The first is a very common, periodic alteration in mood called Manic Depressive Psychosis. Like many another name in medicine, this name is descriptive of the symptoms. The manic part implies one phase of the condition, a phase of overactivity, excitement, exalted mood, often associated with destructive conduct. Here one sees the classical maniac—singing, dancing, shouting, screaming, talking continuously with the previously described flight of ideas in evidence, decorating himself in absurd fashion, with all inhibition thrown off of tongue and act. The delusion of grandeur appears with the euphoric mood, and the patient boasts of his strength,

beauty, virility, sanctity, and wealth in the most extravagant fashion. In its milder forms, this manic phase does not reach the asylum. The patient merely becomes very talkative, very active, enters into foolish and fantastic financial and social schemes, becomes tangled up in sex adventures totally foreign to his habits, builds up ideas of great inventions, and talks of new social schemes which may even interest others who do not understand the real mental state of the innovator.

This manic state alternates with the depressive phase, which is the complete opposite in symptoms. It is most strange to see a man or woman who has been excited, joyful, and grandiose, slump suddenly into almost complete inertia, with the saddest sadness written on his face, and the lowest possible self-valuation in his heart. Delusions, though not essential in the evoluton of this phase, are universally present in the severe forms—delusions of self-accusation and of fear. Hallucinations are not so common, but often the patient has "illusions"; that is, he mistakes a real object for something not present, usually with a sinister twist. Thought is painfully slow, and concentration on anything else but the melancholy content of the mind is almost impossible. The patients refuse food, cannot sleep, sexual feeling disappears, and all the pleasant emotional contacts with others fall away, so that no love is felt for those around. There is no interest in the things formerly of importance, and life becomes a huge mental pain unrelieved by joy or hope.

The milder forms of the depressive state constitute, in my experience, the most common mental disease. and in the main do not reach the asylum. A very large proportion of the suicides which startle a community are due to the depressed phase of manic depressive psychosis, and most of the cases where a mother (less often a father) destroys the children and herself are of this origin. In the milder cases the patient is without cause melancholy, finds action difficult, concentrated attention painful, is non-productive so far as plan and purpose go, and loses the sense of pleasure in existence. Very often the disconcerting feeling of unreality appears, in which life is viewed through a haze, with a certain unfamiliarity about what should be familiar, probably because the normal emotional response is gone, and because that which gives reality to life, meaning-value, is diminished. These people are not insane, in the legal sense of the word. With pain and effort they carry on their work, or leave for a "vacation", a "rest"; but laughter and smiles disappear from their lives. Then as inexplicably as the cloud appeared, it disappears and the patient is himself agaın.

Probably Manic Depressive Psychosis is the most hereditary of the mental diseases; that is, the most prone to run in families. Many cases are cited where several members of one generation and many members of several generations are involved. The cyclothymic temperament, by which term is meant a temperament with rapid and extreme fluctuations of mood, is believed by some to be basic in this disease. This temperament is inherited, and thus the disease. While this may be so, it is certain that in many cases only one member of a family is involved, and no possible heredity is discoverable, unless one stretches into abnormality all the common variations of the human being.

There is a school which, rejecting the hereditary cause of this condition, falls back on psychogenetic causes—that is, emotional reactions due to adverse circumstances, and traceable by the psychoanalytic procedure. The heads of the psychoanalytic movement say little about this, though some of the lesser lights rather loudly proclaim the genesis of this disease in complexes. Nothing at all resembling scientific proof has been adduced for this point of view, and the safest attitude at the present is to regard Manic Depressive Psychosis as of unknown cause, but at times strongly familial.

Most attacks of Manic Depressive Psychosis tend toward spontaneous recovery, a fact which psychiatrists themselves sometimes overlook in evaluating their treatment, and which completely misses the layman. Many a healer has gained a great reputation

because his treatment of a maniac or a melancholiac has been attended with startling success, but this success is entirely due to the fact that his treatment has been administered at the peak of the disease. the same way, dentists have been thrilled at the efficacy of wholesale teeth pulling, and doctors have been misled when they have operated on this or that organ, given this or that gland. The main treatment, if the case becomes severe enough for a hospital, is, in the maniacal excited stage, to keep the patient from injurying others and from wearing himself out, and in the depressed phase, the job is to keep up nutrition (for often the patient refuses food) but mainly to prevent the urgent desire for self-destruction. milder cases, which generally lead to the taking of rest cures, ocean voyages, tonics, baths, Christian Science, New Thought, psychology, etc., the best treatment is to keep in mind the ultimate recovery, to keep the patient at some occupation, increase the appetite, and bring about sleep—and Nature does the rest.

# Dementia Præcox: (Schizophrenia)

Another mental disease of unknown cause, and also running in families, is much more sinister and even more unrelated to the experiences of life than Manic Depressive psychosis. This disease, most commonly known as Dementia Præcox, but which lately has been christened Schizophrenia, starts early in life, often

with a history of peculiarity in temperament, and there develops a chronic, usually progressive disorder, leading in the most of cases to a very complete breakdown of the personality. Here one finds the classic symptoms of insanity, its hallucinations, delusions, breakdown of judgment and memory, its grotesque alterations of conduct, the pathetic and horrible alienation from normal human emotion and will. The end result, in the larger number of asylum cases, is a fragmented personality, shut out from human contact, vegetating in a dim and cloudy world until the end, which is unfortunately not greatly hastened by the breakdown of the mind.

Thus the mental symptomatology of Schizophrenia (or Dementia Præcox) is the most varied and the most puzzling of all the mental diseases. In its milder community forms, one finds a list of grotesque persons, whose manner, dress, ideas, and emotions jut out sharply from the mass of the ordinary, convention-ridden people around them. In the main, they are unsocial, and therefore relatively inaccessible to the sweep of environmental ideas and moods, which is a factor in the continued development of their own peculiarities of thought and feeling. These odd people may continue useful and sometimes are even talented throughout their life, but they stand out as potential candidates for the hospital. In the evolution of the disease, the split from normality continues, phan-

tasies become mistaken for realities, peculiarities become so extravagant as to unfit the individual for self-sustaining community life, thought becomes split up into delusions, images are metamorphosed into hallucinations, and conduct out of relation to the common ideal appears. The trend of phenomena is toward inaccessibility, dementia, and apathy of a vegetating kind, the end result being a drooling, curled-up human ball, sitting on a bench utterly oblivious to what goes on outside of him. What goes on inside of him can only be guessed at, in the present state of our knowledge.

It is not to be inferred from the above that all, or even the majority of odd or peculiar people are potential cases of Dementia Præcox. What is implied is that a disproportionate number of cases of the disease have as a background a history of a semi-hostile, semishy, non-assimilated member of society. Nevertheless, there are plenty of cases arising with no such background, with no gross previous peculiarity; people who have lived in the full current of contemporary thought and feeling, but who rather suddenly start to misinterpret the life around them, and plunge with startling rapidity into a permanent, rapidly progressing psychosis. In other words, the abnormal personality from which so many of these cases start is not a cause of the disease, but a very early symptom of it.

With all this grotesque and varied symptomatology, lasting often from very early youth to old age, and cluttering up the asylums of the world in a way which no other disease does, medical research has established no pathology for Dementia Præcox. During life, the blood, urine, fæces, and spinal fluid show no constant changes, x-ray reveals no lesions, and the great organs of the body seem to function quite properly, considering their disadvantage in operating under the control of a disordered mind. And after death, the organ or organs responsible hide their secrets from the pathologist, if the disease is organic. Some men deny that it is, and seek for its origin in complexes and in disastrous experiences; but most, even of the psychogenesists, speak of a "make-up" or constitution which is responsible. Since, in many instances, this make-up passes from generation to generation, it becomes difficult to conceive that it is without some organic root.

Thus, we find that these major diseases arise on the one hand from great environmental situations, and, on the other hand, from causes unknown, but which for the present we link up with the indefinite terms "heredity", "inborn temperament", "innate constitution". The environmental causes bring us face to face with age-old problems—alcohol, venereal disease, infection, stress and strain of life and poverty; problems which are only in part medical, which

are entangled with social customs, diet, marriage, and the warp and woof of organized human life. The nonenvironmental causes have been very widely discussed on the basis of a very slender scientific knowledge; eugenics has sprung up as a legitimate effort of man to control mental disease, crime, and degeneracy, but its most vigorous exponents have generalized beyond all reason and experience, as we shall later show.

There is an old adage that all cats look gray in the dark. In the obscurity which surrounds mental diseases, all look alike to the inexperienced, all look alike to the congenital generalizer. As our knowledge grows and light comes, insanity breaks up into units, each of which has a different cause and demands concentrated individual research.

#### IV

Man is most resolute in facing away from the disagreeable facts of his existence, and camouflages the ills that beset him by misnaming them. Thus, the folk name for the minor mental diseases is "nervousness", and the medical name is "psychoneurosis". But there is no evidence whatever that the nervous system is at all involved in these conditions; neither in cord, brain, nerves, nor in any other part of the widespreading nervous links which rule and adjust the body is there known disease of any organic kind. True, the physician takes refuge in the statement that the "function" of the nervous system is impaired without change in structure, but this is a mysterious and profound explanation which means absolutely nothing.

There is nothing more mental than the insomnia, the fatigue, the fears, the brooding introspection, and the impaired joy of the neurasthenic; there is nothing more born of the mind than the phobias, the tics, the compulsions, the impaired consciousness of the psychasthenic and the hysteric. Whether we believe in

the Freudian explanation of these phenomena, with its insistence on a conflict between an upper and a lower self, or whether we explain them on the more superficial level of conscious struggle, disappointment, disgust and despair, in either case we invoke the human mind in pathological reactions against life. The manifold symptoms can all be described in terms of abnormal emotions, abnormal volitions and abnormal ideas, even more than in the case of the major mental diseases.

Aftr all, names are unimportant if they do not hide the facts or create false attitudes. Clearly understanding that nervousness is a folk term for a variety of mental disorders of various kinds, and appreciating the fact that psychoneurosis is a medical term which. in general, means minor mental disease without structural nervous disease, there remains the fact that next, perhaps, to the common "cold" (also falsely named) the psychoneuroses are the most common of human ills, add heavily to the sum total of human unhappiness and more heavily to human exasperation, create the vogue of this or that doctor, explain the use of Christian Science, New Thought, and all the healing fads from the chew-your-food-a-hundred-times to the dip-your-feet-in-the-cooling-dew cult. Misunderstood by his family, and their despair, the poor psychoneurotic wanders from doctor to doctor, and each specialist takes his whack at him. His tonsils are removed.

his teeth pulled, his arches supported, his back strapped, and, if he happens to be a she, her inner organs are in grim danger. The medical profession, trained in anatomy, physiology, pathology and biochemistry, has just begun to realize its need of psychology, has just begun to understand in a formal way that the human being has not only a liver, spleen, heart, kidneys, and the like organs, but has deep emotions which may be sick, has a will which may be thwarted, has curious responses to the complex life immersing him which may arise from false pride and perverted habit.

If I were to describe in detail the symptoms, let us sav. of neurasthenia, it would be borne home to each reader that he is, or has been, neurasthenic. At any rate, I predict that if he has as yet escaped, he may safely reckon on being enmeshed some day. This cheerful prophecy I will mitigate to this extent—I do not mean that he will break down or pass into the hands of the neurologist, I mean that he will pass through a period when, without apparent cause, he will find himself unduly fatigued, when his mood turns to a mild pessimism for no reason, when the outer world and its joys seem hollow, and the inner world of his body and mind occupies his attention until he fears that he has this or that bodily disease, or that he may go crazy; when sleep and appetite are disturbed and sex is as stale as last week's bread; when he will

become anxious about himself and ask whether or not his arteries are getting hard, or perhaps he needs more exercise; when he will commence to read the health ads and secretly take patent medicines; when he will get cross over nothing at all, and start unreservedly at the least noise. Or again, if he is a she and a house woman, she will drag herself around her daily tasks enraged, disgusted, and tearful.

It is necessary to be a bit systematic at this point. The psychoneuroses have received much attention from the neurologist, the psychiatrist, and from medical men in general as well. There are several classifications, but a very simple one, perhaps a bit antiquated but, in my opinion, fully as adequate as the later ones, is the following:

First, there is neurasthenia, the most common psychoneurosis, and the one most nearly corresponding to the lay term, nervousness. The fundamental symptom is undue fatiguability, without any known organic cause (as, for example, heart disease, tuberculosis, anæmia, diabetes, etc., disease conditions in which the energy of the body is seriously involved). The fatigue shows itself physically by the inability to exert oneself without great distress, and the patient may even become bedridden as a result. The chronic tired feeling is an integral part of neurasthenia. Intellectually the fatigue interferes with concentrated and purposive thinking, the irrelevant is with difficulty

excluded and memory seems impaired, though it is really attention which is involved. Emotionally one finds a mild depression, often anxiety; also irritability and a great liability to worry appear, with difficulty in reaching satisfaction or contentment. The great organic appetites are impaired—appetite for food, sleep, and sex all may be involved. Then, to cap the picture, pains of all kinds are experienced, usually not severe, but distressing, and heightening the introspective anxiety into hypochondriasism. Without more than a skimming of the surface, this picture of the neurasthenic gives at least an idea of the great variety of symptoms which the patient presents.

Psychasthenia, less common, is more sinister and much more difficult to treat. In psychasthenia, the mental side of the picture is clearly defined, and the physical may even be insignificant. Here we find the phobias, fear of high places, low places, open places, fears which are veritable unreasoning panics; the obsessions, where the mind fixes itself, against the conscious will of the sufferer, upon words, phrases, ideas, acts, and though the victim rebels, yet his divided mind carries on the conflict, so that alternately he swings from the thought or deed which haunts him to the rebellion and self-condemnation it actuates; the compulsions, in which the repeated act, often silly, like touching each third post, masticating a hundred times, or continuously washing the hands, is somehow neces-

sary. In psychasthenia, the fear or anxiety almost reaches a major mental disease, except that no delusion enters into it, and it comes in short episodes. Perhaps the worst feature of this psychoneurosis is the classical "folie de doute," which is fundamentally a mental struggle over each decision, no matter how trivial, a prolonged debate over whether or not to cross the street, how to put on the shoes, whether the gas is to be shut off one way or another. This "ambivalence" almost approaches the condition seen in Dementia Præcox, but there is no abandonment to the doubt in psychasthenia, and conduct is somehow carried out, though with great inner pain.

The third great psychoneurosis, hysteria, is one of the most remarkable conditions the human being presents, and has contributed largely to the history not only of medicine but of witchcraft, religion, and great social movements. The symptoms are bewilderingly profuse, and their consideration and analysis is the real basis of the Freudian psychoanalysis. There is the hysterical temperament, so-called, which shows itself in the free display of abnormal emotional and physical states whenever the individual is placed in positions of pain to his or her egoism. There are the hysterical disturbances of sensation, curious phenomena where an arm, or leg, an eye, or an ear loses its capacity for recording stimulii from the outer world, though no change in any sensory pathway can

be observed. (These constitute the so-called stigmata by which the old witch finders used to detect women who had sold themselves to the devil.) Still more striking are the paralyses, the loss of movement of legs or hands, the loss of voice and speech seen after all kinds of emotional situations, especially in men after physical injury in war or industry. Terrifying to the uninitiated are the hysteric attacks, which are disturbances in consciousness, with a remote resemblance to epileptic attacks, but which show striking differences, the most significant one being the fact that the epileptic may, and often does inflict severe injury on himself, while the hysteric never does himself any damage.

The theories explaining hysteria range from the materialistic vasomotor disturbance of some neurologists, through the "lowering of psychic tension" of Janet, to the elaborate Freudian explanation which makes of the unconscious a semi-diabolical opponent of the conscious and finds motive and organized purpose in all the symptoms. It is significant that men and women suffer from hysteria (which thus is wrongly named since it is derived from hysteron, the uterus), but under different circumstances, the men under the stress and strain of war and industry, the women under the stress and storm of sex and the home. The symptoms in some measure represent an effort to win the point of having one's own way, to take revenge on

a stronger individual or group, and thus constitute a sort of "will to power through weakness." Yet this is not the whole of the story by any means, and in fact we do not as yet, in my opinion, possess a truly adequate explanation of hysteria. The disease has, however, contributed greatly to the growth and tenacity of religions and cults of healing, because hysterics have a remarkable way of suddenly becoming "cured" under the spell of prayer, suggestion, strong personality influences, and magic of all kinds, as well as the therapeutics of psychoanalysis, bitter tonics, strong electric currents, and all the paraphernalia of medicine. For the struggling healer ambitious to set up as a holy and potent personage, I strongly recommend the cure of a few "blind, deaf, and halt" hysterics as a short cut to the faith of the multitude.

It is necessary to proceed cautiously in a medical consideration of the causes of these conditions. Much has been said and written on the matter of the psychoneuroses, and each year the burden of books grows greater. Some writers deny the "real" existence of the complaints they treat, and seem to indicate that the mind is not real and the patient not sick, which is absurd, since whatever we feel is the highest reality we have. Others wax magical and they solve, presto chango, the ills of their fellow men by an analysis of their minds, and dissolve the habits of a lifetime by an hour or a week of good advice. The truth of the

matter is, as one saddened neurologist sees it, that the psychoneuroses arise from physical disease, from the bad habits of modern civilization, from the complexities of sex, from the conflicts of instinct with morals, from fatigue, jealousy, envy, lust, love, idealism, selfishness—from the bewildering warp and woof of life and human constitution. Like greatness, some are born neurotic, some achieve neurosis, and some have neurosis thrust upon them.

Some are born neurotic who, from the beginning, face life with lowered endurance, with fear and undue sensitiveness. Whether or not early training is at fault, they show an irritable emotionality even as young children, and periodically wear themselves out. They are hyperæsthetic, which means that trifles mean too much to them, and that disgust with its interference with appetite and energy overpowers them. For here is a great truth, that where tastes are too fine, pleasures are hard to reach and keep in a crude world, full of unexpected bestialities and countless imperfections. A certain heartiness, even crudeness of taste, is a great shock-absorber in this not quite best of all possible worlds.

Some achieve neurosis. One hardly knows where to begin here, nor how to separate this topic from the next. They achieve it who pursue too diligently fame, wealth, and pleasure. The subject begets contraries—too centralized a purpose with not enough relaxation

brings a collapse of energy because the stimulus fails through monotony. Life does not gently treat the eggs which are all in one basket. And the one with no centralized purpose, the drifters seeking excitement and satisfaction from this or that, waste their energy because it grooves no channels of easy discharge, get bored with life, become cynical and—neurotic. Scratch a cynic and nine times out of ten you find a neurotic. Queerly enough, scratch too loud an optimist, and you find a neurotic whistling to keep his courage up. Diogenes and Pollvanna are relatives under the skin. This achieving of neurosis has its details. Mood is begotten in bowels as well as in brain, and the sedentary man or woman with sluggish insides faces life with less hope and energy than they of active insides. The hurried noonday meal has its part to play in the fatigue of our lives, and the countless bombardment with stimuli to which we subject ourselves in too many papers, magazines, books. movies, radios, automobiles—the speed, speed, speed of our lives, brings about a tetanus of our energies which, now and then, is varied by the collapse of neurasthenia. And the fierce, unending competition in non-essentials, in clothes, autos, dresses, in keeping up with our Joneses, in their expensive follies and, most of all, in their habits, draws the joy out of life and breeds the essential disgust of psychoneurosis. Verily, as one watches the antics of human beings, it seems

evident that to become neurotic must be a primary aim of mankind.

Some have neurosis thrust upon them. They are those who have had physical illnesses from which they have not been allowed to completely recover; they are the poor who go to work as soon as they get out of bed; they are the women who are hardly over the labor of childbirth before they are at the labor of their homes. They are the unfortunates too well endowed with emotion, who have to live and work in monotonous or uncongenial milieu; they are the wives yoked by conscience and custom to disgusting husbands; they are the husbands bound to petty, unreasonable, nagging wives. They are the square pegs in the round holes, who feel their unfitness; they are the idealists thrust willy-nilly into a world which rides roughshod over the too scrupulous.

Sex and its complexities runs like a scarlet web through the minor mental diseases, as it does through the whole of life. The continent and the chaste have their difficulties, for if chastity is socially desirable, it is individually difficult, and becoming increasingly more so in a civilization which proclaims the glories and delights of the sexual life in novel, drama, art, music, and in the elaborate allurement of dress. The profligate reach exhaustion, and the happy medium is difficult to reach under a code of morals which says, "Thou shalt not", except on conditions not easily

lived up to, as witness the divorce rate. And marriage, with its call for domesticity and subordination, breeds difficulties for women bred out of domesticity by their industrial opportunities and experiences, and who, with their status of equals, are more and more impatient of the subordination implied by "Mrs." and the implied obedience to the husband. Add "Birth Control" (which is by no means here disapproved) and the restricted and artificial sex life thus interpolated into marriage, and one understands why one out of eight marriages ends in divorce, and why the home is threatened as an institution. Every forward step adds new problems to mankind—the freer life of woman is to be commended as a part of the humiliation of mankind, but certainly the millenium is as far off as ever.

If we attempt to analyze in a more general way the causes of the minor mental diseases, to find some basic patterns in the confusing picture we reach a few major situations which operate in the majority of cases.

We find past physical illness, especially pneumonia, influenza, surgical operations, and accidental injuries. Here the interrelation of mind and body is shown at its prettiest, and fatigue enters prominently into the picture.

We come on bad physical habits—lack of exercise, hurried meals, insufficient sleep and recreations. I am not inclined to believe that articles of diet play much rôle; perhaps excessive coffee, tea, and tobacco have some part. I am more inclined to state that coffee, tea, and tobacco make the already nervous more nervous. Nothing like a good cup of coffee to start the day right, and nothing like a good smoke to put the finishing civilizing touch to a meal!

Then there appears emotional conflict, mainly within the self, ranging around sex, social relationship, and work. Here we find the divided self, the lowered self-valuation, and the consequent or coincident lowered energy. Fear as a factor in the form of worry is especially prominent; disgust enters, and also futile irritation. The irrational conscience and hyperæstheticism, *i.e.* virtues in excess, add their victims, and not only among New Englanders.

A curious but highly important psychological phenomenon appears—the use of the symptoms as weapons in the social-familial warfare. Everywhere there is a struggle for power, for having "one's own way", for getting the thing one ardently desires. The strong get these things by brute force, the intelligent by strategy, the eloquent by persuasion, and the weak—by their weakness, by playing on the sympathy and tender emotions of the strong until, to avoid this emotional torture, they are given what they want. This one sees most exquisitely in the case of the nervous child and the nervous woman, but men do not scorn

to use their own weaknesses. Witness the soldier whose fear and discouragement plunge him into sickness-and the safe hospital; witness the industrial worker whose injury plunges him into mental illness -and compensation. No one doubts the reality of the illness of either the soldier or the worker, nor the cause as residing in the horrors of war and the accidents of industry, but the subconscious or dimly conscious motive of benefit to be received operates unmistakably.

As I said, books have been written on this matter of the minor mental diseases, and they have not exhausted the subject, whatever has happened to their readers. So I forbear a further discussion of causes, with the statement that one neurologist would not be at all surprised or hurt if some day advancing science threw all the above "causes" into the limbo of mediaeval notions and established a biochemistry of the minor mental diseases.

But what can be said of treatment where cause is so obscure? In the next chapter we shall see what the Freudians say, and so leave out psychoanalysis as a factor for the time being, and deal in a less pretentious but more practical way with the problems. (Freud says only the well-to-do can afford psychoanalysis, and since there are only a few psychoanalysts of real qualifications, only a few of the well-to-do can be treated.) In the meanwhile, we conservatives in the realm of psychopathology work on more easily understood principles.

The first factor is the inculcation of habits which restore sleep and appetite, since both of these are usually impaired in the minor mental diseases. Sixteen hours of consciousness is more than enough for the average human being; more is too much of a good thing. Parenthetically, a short nap in the middle of the day is the finest prophylactic against nervous exhaustion. And the joys of the table add too much to life to be missed. A program of therapeutics which, by means of exercise, medicines, baths, diet, etc., fights insomnia and anorexia is essential. He who sleeps and eats well faces life well, and can usually handle his own complexes. But when one lies awake at night, little troubles become big ones, and when food tastes like straw, it's time to see a doctor.

This rather crude but remarkably effective, if successful, preliminary treatment needs its psychotherapeutics side to render it human. The psychotherapeutics is as simple to enumerate as it is difficult to follow:

Adjust ambition to abilities.

Know something about yourself, but not too much. It may not be pleasant in any event.

Control emotion, especially fear and hyperæsthetic disgust.

Alter intolerable situations if they are alterable, if

not, make the best of them. (Few situations are really intolerable.)

Thrust out prolonged remorse, for few are the sins that are prevented by dwelling overmuch on them. Likewise, at times give your conscience a rest. Parenthetically, over-remorse and over-conscientiousness are often a disguise for less credible things.

Make moderation the golden rule. Periods of rest after exertion, periods of privation after pleasure.

Above all, develop endurance. This is a better rule for the prevention of minor mental diseases than for their cure, and this applies mostly to children.

Does civilization increase the ravages of the minor mental diseases? It is difficult to conceive of an obsessed animal, though one sees very prolonged and severe fear states amongst them. And surely nowhere but in civilization is night turned into day, is there so continuous a bombardment with mental stimuli, and nowhere are the age-old instincts so hampered and hindered by convention. Yet the savages have their inhibiting customs, and our occasions for real fear are few as compared with those of the jungle and cave. But the weight of the future hangs heaviest on us, and as we have advanced in knowledge, our place in the universe has become so small as to lower man's place to a humble and rather humiliating status in the scheme of things. Yet civilization has its blessings, which, if we choose them wisely and use them rightly,

more than compensate. There is safety, there is art, there are books, there are quiet places where one may drowsily recuperate from the tenseness of the industrial and economic struggle. There is golf which is good until it becomes a disease, and there is philosophy which is helpful if one does not take it too seriously. There is work and play and love—all of which have incomparable beauties, but need as balance a sense of humor.

THE light that streams from the sun to its tiny offspring, the Earth, seems pure and undivided, a gracious unity; but Science filters it through a prism and shows that it is made up of all the colors in the rainbow. The blood that streams from an artery is, to the naïve watcher, a red liquid, the essence of life; but Science sits down with its microscope and its chemical retorts, and lo! we find not only 5,000,000 red cells to each cubic millimeter and 10,000 white cells divided up into numerous classes, but an army of platelets and a host of chemical substances, the names and proportions of which haunt the medical student until his exams are over.

So it is no wonder that Science, in turning its grim, analytic attention to the mind, has raised havoc with the simplicity of a mental scheme which naïvely says, "I feel", "I think", "I will", "I act", and believes that some unity, named "I", really exists. True, when a man says, "Now you are yourself again," to some one who has acted strangely, he implies that there is more than one self to the individual, but rarely does he mean what he implies in more than a metaphorical

sense. It seems the core of all reality to us that when we choose, all of us is choosing, and when we act, that into that deed there flows the very stuff of our personality, our conscious will.

Along comes a harsh fellow, named Sigmund Freud, who studied his fellow men and women with a view to understanding that medical mystery, hysteria, and lo! out of his diagnostic and therapeutic efforts, there flows a whole psychology and metaphysics which has flooded the world with its ideas and inspires books and plays of a new kind. And everybody talks glibly of repression, complexes, sublimation, wish fulfillment, and subconsciousness as if they really understood Freud and knew what he was talking about. Gentle reader, let me say this, that with the exception of a few professional philosophers, psychologists, psychiatrists, and psychoanalysts, I have not met a dozen people who knew more than the terms of Freud.

Dr. Sigmund Freud is an Austrian Jew, living and practicing his profession as a psychiatrist (or neurologist) in Vienna, and now about 70 years old. Since, in the more than 30 years of his occupation with the special theory he has fathered, it has altered considerably, I shall confine myself to certain main points which appear in a recent five-volume translation of his writings.

The Freudian psychology is based on the concept that the conscious is only a fragment of the psychic life of the individual, that hidden from view, but ever active, is the unconscious; that there are two parts of this unconscious, first, a preconscious which may pass into the consciousness, second, a more important portion, the real unconscious which does not enter into the conscious for a very interesting reason and one characteristic of the Freudian "metapsychology". That reason is that there is an unremitting effort on the part of the conscious to keep the unconscious out, to repress it, to censor it, and it cannot appear in the consciousness except in a mutilated, distorted, or symbolic form, such as, for the great examples, the dream and the neurotic symptoms, or, as a lesser example, the slip-of-the-tongue. Why this effort on the part of the conscious to exclude the unconscious?

Because the unconscious is primitive, uninhibited, crude, egoistic, and, especially, highly sexual and opposed to the evolved, inhibited, refined, social, and sexually controlled consciousness. Let us take the example of sex as the great illustration, since the main conflicts between the conscious and the unconscious rage about sex.

A man grows up, marries a woman who must belong to some group of people outside of his nearest female kin, and strives to be faithful to her, to love, in a sexual way, only females, to view his children, his friends, and his associates in some non-sexual fashion, and, in general, to govern his sexual conduct according to recognized ethical patterns. He thinks of his sex life as arising sometime about puberty, and gives it an important place in his life, but recognizes as more important, codes of honor, ethics and morals. This is his conscious reaction to sex and its problems. I do not mean that he does not lust unlawfully, but he represses these feelings as well as he can, or succumbs, but usually the range of temptation is limited to some woman not his wife, and surely not his mother or his sister.

But the unconscious sex life of that man is a totally different matter. It starts with the newborn infant, whose every act is laden with sex import to the Freudian, from the nursing at the breast to the sucking of his thumb, from the moving of his bowels to his early explorations of his own body. This is the autosexual, the narcissistic stage of life, where sexual feeling is directed to the individual's own person, and is succeeded by homosexual feeling, or attraction to the same sex, this being shown by preference for sexual and social relations to the same sex, the father, brother, chum. Later, this is succeeded by direct heterosexuality, or feeling for the opposite sex. This last is the completely evolved sexual feeling. But in all of us the infantile and childlike types of sexuality persist, and in some the evolution almost completely stops at either autosexuality or homosexuality. Nor does the unconscious limit its sexual feeling to the "proper" recipients

of it; it is laden with incest motives of deep and persistent nature, so that family life would seem to be a most dangerous form of social existence, as indeed most Freudians believe it to be. The boy loves his mother (not in the usual filial senses), but with the Œdipus sexual complex, and deep down he is jealous of and hates his father. You may reverse the situation for the girl. Or the brother and sister, beneath the orthodox family relations, are loved not in a platonic sense. Or, if the boy loves the father, or the girl loves the mother, then either it is a hate unconsciously, or else it is a perverted homosexuality. You cannot escape the net of Freudian sexuality (to the Freudian all sexual life is normal, some is merely unconscious and socially non-permissible), even though the pet non-sexual name for this urge of the unconscious is libido. Orthodox conscious conduct always has behind it the lurking unconscious sexuality dating back to infancy: unorthodox conscious sexuality is traced back to infantile or childhood regression.

Though the consciousness, through an agency called censorship, attempts to limit the activity of the unconscious so that the abhorrent, socially-styled perversities shall not enter into thought or conduct, it fails, just as all censorship does. The dream is an evasion of the censor through a sly bit of technique on the part of the unconscious, which, for a primitive, uninhibited portion of the personality, shows an unusual

cunning. The dream, the analysis of which is the keystone of psychoanalysis, slips by the censor in some acceptable, more or less innocent form, which is the dream as recalled, or the so-called "patent content." But when the dream is analyzed by the special Freudian technique, one discovers that in reality the patent content is a mere disguise through symbolic words and situations for a "latent" or unconscious "content." This latent content, the real dream, is ordinarily a wish-fulfillment, but of wishes unacceptable to the conscious personality, and therefore kept out of waking consciousness. Each portion of the dream has a definite symbolic significance, which usually relates to sexual experiences either of a forgotten or repressed type, and the whole of the dream is a consummation in disguise of the tense, desirous unconscious.

Not only in dreams do these repressed experiences and yearnings of the unconscious appear. The slips-of-the-tongue or pen, explained by orthodox psychologists as conditioned by the slipping of the mechanisms of the association of ideas through fatigue, emotional states, divided attention, and the like, are purposive evasions on the part of the unconscious. Wit is highly charged by the unconscious motives, and art in general represents the expression of the unconscious motives, however the artist views it. Freud has attacked anthropological problems as well, and the significance of the totem division of

ethnic groups and of the restrictions on conduct called taboo have been traced by him to the libido of the unconscious and the struggle of the consciousness against it, with formulations which represent the early social efforts against the primitive, socially demoralizing unconsciousness. The structure of society is thus based on a series of repressive efforts on the part of the conscious attitudes of the group members against the fiercely struggling unconsciousness. The dominance and jealousy of the father and the incest motives of his sons (like that of a bull with his herd of cows and his attitude against the young males) gave rise to the patriarchal structure of society-leaders, kings, priests, laws, etc. Needless to say, the professional anthropologists have, with few exceptions, not recognized as valid the Freudian interpretation of the growth of human customs, but have, like Frazer, found in the association of ideas and the naïve development of ideas of magic and religion the sources of the structure of society.

One of the most important of the manifestations of the unconscious, according to Freud, is in the symptoms of mental disease, and especially in that group of disorders discussed in the last chapter under the heading of the minor mental diseases, the psychoneuroses.

Says Freud, "We learn that when we come to try to comprehend neurotic disorders, by far the most

significance attaches to the sexual instincts; in fact, neuroses are the specific disorders of the sexual function; that, in general, whether or not a person develops a neurosis depends upon the strength of his libido (i.e. that force by which the sexual instinct is represented in the mind we call libido—sexual hunger) and upon the possibility of gratifying it and of discharging it through gratification." This libido, operating in the unconscious, repressed in the form of complexes, with their force hampered by the conscious self, breaks through in the shape of the neurotic symptoms, whatever nature they may be. Moreover, the neurotic symptoms are symbolic and purposive, i.e., represent a wish-fulfillment, much as the dream does. So that the headache, fainting spells, emotional outbursts, paralyses, etc., of the hysteric are really "substitutive gratification" of the unconscious instinctual impulse.

The life of civilized man, and especially the life of the neurotic civilized man, is thus an intra-psychic conflict, a civil war, in which the conscious Ego struggles to maintain in a sort of inner prison the Unconscious (or the Id as Freud later called it), and particularly those sexual stirrings of incestuous, homosexual, narcissistic nature, as well as the corresponding hate, rivalry, sexual jealousy felt toward father, mother, and the near of kin generally, with the Unconscious striving to discharge the energy of these impulses and complexes in dreams, slips of the tongue,

wit, art, and the nervous and mental illnesses. For the man or woman who remains relatively normal despite this terrific inner struggle, there has come the salvation of sublimation, which is a transference of the energy of the unconscious to outer reality, to work and art—And the neurotic is cured by an analysis which brings the disturbing complexes to conscious attention and then to subsequent sublimation.

Into the complexities of the technique by which the foregoing is learned, I cannot go. The main reliance is on the analysis of dreams by the so-called free association method. The essential of this method is that the patient shall say whatever occurs to him, no matter how irrelevant, shocking, obscene, etc., in response to the words and situations of the dream. In this way the gaps which the dream presents are filled in, and the symbolic images and situations by which the Unconscious disguises its crude sexual trends are clearly brought to their origin. The analysis lasts many months, often two years of daily séances; there are resistances to be overcome, new symptoms arise, and, especially, the troublesome transference is to be met. by which is meant that the libido or unconscious sexual impulse attaches to the physician.

How much of all this is true? Freud himself calls the whole scheme "metapsychology", tacitly placing it in a sort of relationship with metaphysics. There are others who call it a pure theology, incapable of

proof, and to be swallowed by faith alone. Certainly nothing corresponding to the scientific criteria of proof attaches itself to any of the articles published either by Freud or his followers. For so elaborate a hypothesis, one ought to find many studies made on normal children, since the whole theory rests on the sexual life of the infant and child. No such studies have been forthcoming—here and there is the study of a pathological child, and not enough even of these to prove anything. The interpretation of dreams rests on a method open to the severest criticism in that by no means is there a free association technique used, since that is impossible, and there is nothing to prove that what is elicited stands in any relation to the dream itself. The interpretation of the symbols is fundamentally an arbitrary one. The bulk of German neurologists and psychiatrists do not accept the doctrine, the French almost totally reject it, a small, but very eloquent group of English and American neuropsychiatrists constitute the bulk of Freud's followers. These men and women are in the main an honest, cultured, exceedingly, almost painfully, earnest group, seeking to cure the sick and to advance knowledge. But on the periphery of the Freudian movement is a host of the half-baked, seeking the new sensation, and avidly swallowing the erotic phases of psychoanalysis, and there is the inevitable army of the partlyrespectable seeking to exploit the half-baked.

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Meanwhile the most important followers of Freud have broken away; Jung has founded a school of his own, and so has Adler. It is pathetic, and not without its humor, to read Freud's reaction to their desertion. Libido, the analysis of dreams, and the incest motives have almost disappeared from Jung, and Adler's contribution of the inferiority complex (which is a totally different thing than the common use of the term) makes unnecessary most of the Freudian psychology. The Master excommunicates them, bitterly analyzes their doctrines, and gives them no credit whatever for their contributions, while his main followers in America, at least, are eclectics who mix Freud, Jung, and Adler in whatever proportions their fancy dictates.

One misses the note of true science in all the Freudian writings. The writers have no doubt at all of the truth of their hypothesis, it is not a mere "as if" in the spirit which science builds up a working basis, realizing too well that it will not stand the test of time and facts, but will help on the road to the discovery of more fact and law. The huge glossary of terms is used with the unction and certainty of theologian expounding eternal law.

Nevertheless, Freud is a great man who has contributed largely to human thought and conduct. The mere fact that his theory is unpalatable to most people is no criterion of its truth or untruth, since the

theory that the world is a midge in the universe and man a fragment of its organic life is still more unpalatable to the human ego. Whether or not the unconscious is in organized rebellion against the conscious ego, with purposes, desires, and motives in direct opposition to those of the latter, whether or not the sex life goes through the evolution Freud depicts, and whether or not incest and those complexes which cannot here be discussed play such a rôle as he says in health and sickness, is really a matter of opinion rather than a matter of fact. In company with many American neurologists and psychiatrists, I do not believe that Freud and his followers are correct in these statements. But we are compelled to view man with different eyes since Freud reached the ear of mankind. There have been writers before him who stripped the inner covering from the thoughts and motives of men and women, but none who has gone at the job with such a grim and relentless completeness. Overdrawn as his sexual picture seems, nevertheless, the veil of modesty and conventional speech hides an inner life of primitive, seething desire, which civilization represses. I am not at all convinced that this inner life is unconscious—all one has to do is to watch the covert glances of men and women, to say nothing of the shallowest glance at one's own mind, to know that the unacceptable continually flits into consciousness in its nakedness and is with more or less difficulty

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thrust out. The deep primitive motives of life are always at work, whether in an organized unconsciousness in the Freudian sense, or in a more mute, less demoniacal, series of sensations, arising from the organs of the body and seeking outlet in hereditary modes of action. With Krafft-Ebbing and Havelock Ellis, Freud has taken the phenomena of sex out of the obscene and prurient, and brought them into the full light of day, to be studied as candidly and as free from prejudice and taboo as the phenomena of respiration. He has helped strip pretence from human life, and in this way has contributed to the achieving of a reasonable social scheme, a thing far in the future, but the nearer because of his work. Whether he has contributed anything very lasting to the study of mental disease, is a matter time will settle, but that he has contributed to human thought in a lasting way, every candid observer must enthusiastically affirm.

That crime is only in part a psychiatric problem ought to be a truism, and such a statement would probably be so regarded by jurists, lawyers, and the bulk of non-psychiatrists. There is, however, a growing tendency on the part of psychiatrists to feel and claim that their training and discipline makes them authorities in the field of unsocial behaviour, since by a stretch of logic, unsocial can be readily converted into "abnormal". A brief survey, so to speak, of the non-psychiatric phases of crime is necessary to delimit the field of this discussion.

Crime in its most comprehensive sense consists in acts or omissions to act which are forbidden by that social organization for conduct control, the law. Those acts are forbidden (for the sake of simplicity, I disregard the omissions to act) which are held to be destructive or threatening to the social structure of the times, or which arouse indignation, fear, or horror on the part of the community, or the rulers of the community. This brings it about that laws vary from place to place, and from epoch to epoch, according to social structure and attitude. In all communi-

ties, rejection of established religion was held at one time or another to be the gravest of offences, and the heretic was burned because his crime evoked horror and resentment of a kind hardly appreciated to-day, but to be compared, for example, to the stir caused by a foul murder. This attitude toward difference of opinion in religion disappeared as soon as unanimous religious belief ceased to be regarded as a binding force, and when its importance was transferred to other matters. Incest, which we regard with such horror as a so-called unnatural crime, was sanctioned by the source of law in Ancient Egypt. Stealing from the outsider held an honored place in the morals and laws of barbaric and nomadic races. Polygamy was no crime in the days of Abraham, and is an honored institution in Eastern countries today. Murder in revenge for private wrong, to avenge private insult, and to settle private conflict was the way the redblooded man was supposed to react in all of Europe until recently. This private vengeance code still exists as a mental state based on tradition in the primitive cultures of parts of Italy and parts of the United States. So intimately related to murder is the social tradition and culture of a group that we have the strange spectacle of Anglo-Saxon England with a low murder rate, and Anglo-Saxon Tennessee mountain with a high one; and the still stranger spectacle that the Italian transplanted to Massachusetts has an extraordinary high murder rate, while his American born sons seldom appear as murderers.

Certain statistical relations which appear throughout the literature show the divergence between crime and psychiatry. Men and women figure equally in psychiatric situations, but they figure so differently in crime that it may be called a masculine prerogative to break the law. The pressure of the social tradition is quite different in the case of men and women, and thus part of the difference in crime. This, as Sullivan points out, makes crime akin to alcoholism as in part constitutional, but in largest part social, whereas the bulk of psychiatric situations is constitutional in origin. Crime appears most conspicuously in adolescence and early manhood, but this is not the case with mental diseases. And again, not to exhaust the differences, but to add one more to them, crime varies with social relations, with economic stresses and crises, with wars and pestilence, and mental diseases do not show any such variations.

Thus, there is a social responsibility in crime considered as a whole, so that society has been said to have the kind of crime it deserves. That there is an effect on potential criminality in training, home conditions, example, and diverse social factors, is tacitly conceded by the law in the care it takes not to allow the orphan to be adopted by immoral and law-breaking people, in the consideration it gives to the claims

of each divorced parent for the care of the children. Yet, when the product of bad social conditions appears before the bar of justice, his crime receives consideration, and the consideration of the history of the events which have shaped the criminal is discarded as dangerous and non-judicial sentiment! We might in fact stretch our idea of social responsibility into a doctrine of determinism, into a doctrine which made heredity and environment the sole factors, and which eliminated individual responsibility. But this is an extreme which may be combated by an opposing philosophy, as well as by common sense and the needs of society.

I stress this social nature of crime mainly because I believe that psychiatry has a useful function to perform in the field of criminology. This paradoxical attitude is explained thus: I feel that any group and any discipline which pretends to be able to do too much, awakens an inevitable resentment before and after it has failed to fulfill its promise, which discredits its legitimate claims. Psychiatry must not penetrate into the great social problems beyond its lines of communications, it must not pretend to a science of character when none as yet exists, it must not translate its hopes and theories into facts which it urges law and society to accept for their salvation.

If we study a crime as an act, then it becomes at once apparent that law and psychiatry view acts quite

differently. "External acts", says Austin, "are such motives of the body as are consequent upon determinations of the will." "For all legal purposes," citing Hearn, "an act presupposes a human being. It assumes that he is practically free to do such act or leave it undone. It implies that he desires a particular end, and that for the purpose of attaining that end, he makes certain muscular movements. These motions, thus willed, and their immediate and direct consequences are called, without any minute analysis, an act." And Pound states that "Acts are exertions of the will manifested in the external world."

But a psychiatrist, or a psychologist, might easily write on human conduct and hardly uncover a will so transcendently free to devise acts as implied by the legal writers. We conceive conduct as arising fundamentally from great instincts which often struggle for the mastery of the motor apparatus, as for example the sex and social instincts; we seek its source in moods arising both from the great inner structures of the organism, and from the contagion of the moods of other human beings, as well as from the rest of the world, moods and feelings which govern thought, choice, and deed. We conceive conduct as governed by intelligence, by inhibitions arising from that intelligence or from fear, from social feeling, including that social feeling called conscience. We think of the mental life of man in its relations to his acts as no simple, free, intelligent choice, but often as a choice obscured by ignorance or low intelligence, often governed by motives poorly defined in the mind of the chooser, sometimes translated into action by gusts of feeling arising reflexly from the environment or from the recesses of the organism. We see acts arising from perverted instincts or from lack of normal instincts, we see drugs and disease destroying that brake upon impulse and unreflecting conduct which we call inhibition, and producing conduct foreign to the past history of the individual. In short, we do not see the act as the manifestation of a will, an intent, but as a resultant of forces at the peak of which may sit that capacity to choose we call the will, but which forces may, on the other hand, sweep into action through a pathological will or through none at all. So that, when the law regards crime as something implying guilty mind (Shirley), we agree only if the idea of mind be extended far beyond the confines of intelligence and the knowledge of the difference between right and wrong as related to things in general or the particular act, beyond the confines of delusion, as the next step of criminal responsibility, beyond the confines of irresistible impulse, which are still the principal criteria of responsibility as the law propounds its question to the expert witness. feeble-minded child knows the difference between right and wrong, if it has been taught the right social

attitude; there need be no delusion to shape insane conduct and as for the irresistible impulse! I share the incredulity of the learned English judge, Rolfe, who says, "It is true that learned speculators in their writings have laid it down that men with a consciousness that they were doing wrong were irresistibly impelled to commit some unlawful act, but who enabled them to dive into the human heart and see the real motive that prompted the commission of such deeds?"

The real criterion for responsibility as I see it, is the existence or non-existence of a mental disease or disorder which interferes with law-abiding conduct. The symptomatic definition of insanity and irresponsibility, as residing in incapacity to know the right or wrong of a particular act, in delusion, and in irresistible impulse, gives way in the mind of psychiatrists to the existence or non-existence of mental disease. We see a variety of mental diseases of diverse origins which manifest themselves in different ways and which interfere with conduct, criminal or non-criminal, in diverse fashion. It will repay us to attack the problem of responsibility in crime as a psychiatrist views it. For we must keep firmly in mind that criminal responsibility is to be fixed by jurists, that they have social motives which, though they are not medical, are the fruit of a social experience which is different from our own, and that they aim at the welfare of society through the suppression of crime. If that suppression can be helped by medical views, they should, we feel, adopt them, but in the last analysis their judgment must be depended on to fix responsibility.

In General Paresis, for example, there may exist a stage prior to that breakdown of intellect which is so characteristic of that disease, when the disease may be declared to exist almost without gross mental disturbance, yet where the character changes so as to make petty thievery very common, though sexual crime of a serious type and murder also occasionally occur. Here a character change for the worse is a definite fact and without delusion, dementia, irresistible impulse—here it is in the general lowered inhibition which permits crude desire and conduct to appear, that we must seek the cause of the crimes committed. One might hesitate to call a paretic insane who, nevertheless, could not be held responsible.

In Senile Insanity, murder is relatively frequent, often associated with delusions of marital infidelity, but at other times related to an increased irritability, which, however, can only by a stretch of the imagination be called an irresistible impulse. The senile sufferer commits sexual assaults on young children at a stage of his disease when he clearly knows the difference between right and wrong, when he has no delusions upon which to place the burden of responsibility and especially that solitary delusion of a mind

otherwise sane, so beloved of the law, but as non-existent as the dodo, when his act may even have deliberation—and yet, as we study the case, as we examine his body, and especially as we see a change of general character which often precedes the gross and final breakdown, we do not hesitate to say that we deal with the early stage of Senile Dementia.

In Manic Depressive Psychosis, the main change is in mood, on some organic basis we do not understand. Crimes are here committed, especially in the depressed phase, of a very serious type, as murder of one's family, directly under the influence of the type of delusion and impulse the law has in mind, and it is relatively rare for them to arise otherwise. But in the manic phase, where serious crimes rarely occur, misdemeanors and minor crimes are frequent at a stage where the heightened self-feeling and the impulse to activity break down the restraints which training and social pressure build up, when instincts held in check by fear of the law, respect for others, and a just selfvaluation, reappear. Every psychiatrist whose practice is outside the institutions has seen mild cases which one would hesitate to commit to an insane hospital, who get into all kinds of social difficulties just because they appear normal.

It is in the group of conditions we call Dementia Præcox, that we find the nearest to the real irresistible impulse. In catatonic præcox, the furor finds its expression in an act which is not resisted, which presents so far as we can see, no moral struggle, and thus differs from the classical irresistible impulse. It is rare that injustice, from the standpoint of psychiatry, is done the well-developed case of dementia præcox. Nevertheless, the early dementia præcox, listless, leading an unreal inner life, beset by a gradually evolving false notion of the life around him, is not unknown in jails and penitentiaries, which he has reached for crimes which represent the reaction of a disordered mind to the complex society we all live in, and in which we struggle to find an adaptation not easily reached.

These are the more common psychoses—the least common of all, the true paranoiac, has figured heroically in the discussions because of his "solitary" delusion, his idea of persecution, which leads him to take vengeance on his persecutors. This was the type of psychosis in the McNaughten case, which laid the foundation of the celebrated theory of responsibility and insanity which in large part governed English and American jurisprudence up to our own time. This type of delusion was heightened by Erskine, in an impassioned plea, to the first place in determining the responsibility of the insane. Yet, even in true paranoia, the delusion is not the only clinical feature of importance, and the whole mental life, even though the individual conducts himself well, becomes falsified

and distorted. The delusion may not, indeed, relate directly to the crime, as in the case of the paranoiac on his way to kill the Governor of Massachusetts, who killed a policeman who inquired into his business.

I might go on this way, through one disease after another as we classify to-day, though imperfectly. The true epileptic furor, or psychic equivalent, is rarer than Lombroso and his successors have postulated as a cause of crime, because in the confusing of resemblances into identities, so characteristic of the Positivistic school of criminology, every outburst of brutality became labeled larval epilepsy. The epileptic, as a result of his attacks, becomes brutal and sullen, and because he is thrown out of one job after another in consequence of his fits, he descends into lower and lower social strata. Thus, he becomes a criminal, often "normal" enough in his crimes, but the victim of a chain of events which has started with his epilepsy. One does not have to invoke any metaphysical relationship between crime and epilepsy to see that the epileptic is pushed toward crime in a way that the law would hardly recognize as lessening his responsibility, but which we who must study other than the proximate causes to which Bacon limits the legal consideration, can give great weight as limiting responsibility.

I come to that group of conditions which are lumped

together under the caption "feeble-mindedness", and which have appeared very conspicuously in recent literature as the background of the crime of the individual offender. Statistics gathered here and there in jails and penitentiaries, sometimes on psychological tests and sometimes on the history and general reactions of the criminal, give varying percentages of mental defectiveness in the criminal communities. There is great reason to suspect that the higher percentages are due to the nature of the tests employed, the group selected, or the bias of the examiner, or perhaps to all three factors. Those whose experience with feeble-mindedness extends beyond criminology know that the lower types of mind of the world do much of its hardest and most uncongenial labor, clear its sewers, carry its garbage, build roads, and are its lowest and poorest paid servants, and that they have a useful place in the scheme of things. It may be uneugenic to breathe the heresy, but I dare say that life would not be as æsthetic and free from discomfort for most of us if there were no feeble-minded in the world.

It is not the really low-grade feeble-minded, the true idiot or imbecile (who rarely commits serious crimes) concerning whom psychiatry and the law have any different standpoint. The obvious defective, who has been known as the community fool, with his gross countenance and his ungainly body, is quickly sent

to the institution for the feeble-minded, where he belongs. It is the moron, often not to be distinguished in appearance from the rest of his fellow men, who is a stumblingblock to legal theory and medical judgment. Tested by his life history—the story of great difficulty in school, advancing no further than the fourth, fifth, or sixth grade, irregular employment at the lowest kind of work, by the unsteadiness and undevelopment of his purposes and emotions, and tested by the psychological tests which show his mental level to be from eight, let us say, to eleven, and by those other tests which bring out his lack of real interest in aught but the narrowest range of his personal experiences—we find him to conform to the higher grade of feeble-mindedness. Is he responsible for the crime of whatever nature which he has committed? [It is pertinent to remark at this point that the crimes for which the mental defective of this grade is to be punished practically never are the higher offences against property, such as embezzlement, forgery, and fraud, but are more commonly malicious arson, rape, robbery with violence, stealing, burglary, and murder, in the order named. (Goring)]. Our feeble-minded schools would need enormous enlargement to receive this type of feeble-minded, and it is perfectly proper to send them to jail, provided they are never discharged. Here is a point I will develop later, but it will become obvious that the idea that

lessened responsibility means lessened incarceration is entirely wrong.

It is the position of psychiatry that the definitely feeble-minded, and especially the morons, have a status in responsibility not essentially different from the frankly insane, despite the fact that here is generally no incapacity to distinguish between right and wrong, etc. The point is that there is a general incapacity to profit by teaching and experience, that difficulty in following ethical standards may accompany difficulty in learning mathematics, that lowered inhibitions and crudely expressed instinct may go with a mind that knows what society means by its laws and its restrictions, but has no ability to profit by experience or to govern conduct by a distant goal. Anger, fear, lust, and desire in their nakedness, relatively. unclothed by discretion and unhampered by sufficient intelligence—this is the mind of the moron; this is either a mental disease or defect, creating at least a relative irresponsibility.

I digress here before studying another group of psychiatric cases to discuss our attitude to the normal. Are not the normal, if there exist any such, of varying degrees of responsibility, in that they have varying intelligence, varying moods and emotional states, varying degrees of inhibition and powers of clear choice? May not the act of the normal man arise through a gust of emotion which sweeps him into

crime, over-powering those mental forces which keep conduct social; may not lust operate almost undeterred in a mind which averages well, and may not it come to pass that acquisitiveness and desperate social situation, operating together break down the injunction "Thou shalt not steal," just as the passion of revenge breaks down "Thou shalt not kill"? The answer to these questions is, of course, "Yes"but the corollary, shall we speak of irresponsibility in these cases, is not to be answered by psychiatrists, at least as yet. For though we cannot say just what it is, there is a difference of kind between the paretic, the paranoiac, the manic depressive, the feebleminded on the one hand, and the normal on the other. All that we get to know about these disease states is that there is some pathology, which is to say, there is a difference from the normal. The psychiatrist may philosophize about the non-psychiatric offender, he may study him as sociologist and psychologist, but he must keep from pushing forward his understanding of him as authoritative. Where the psychiatrist deals with mental diseases of whatever type, he is the only authority mankind has, but where he steps into everyday life, he must prepare for buffets and incredulity. The psychiatrist will have plenty of work for the next century or two understanding and treating the insane. the feeble-minded, the epileptic, and the neurotic. The pathology that he deals with will help, as all pathology

does, the psychiatrists and others in understanding normal function, but it does not explain in any fullness, social life and social institutions.

The object of the criminal law is to substitute public for private vengeance, is to reinforce those social feelings which tend to keep the individual in conformity with social law, and which struggle against egoistic purposes, through the fear of punishment and disgrace. The law thus acts from the side of society through the motives of revenge and self-protection, and from the side of the potential offender, it acts as a cohesive and socially accepted transmitter of disapproval and pain. Disapproval and pain are part of the technique of teaching-without them experience would not teach or deter. It is a soft and unpsychological view of existence which excludes pain and punshment as valuable. Even though hanging for sheep stealing is unjustified, imprisonment and fine deter forcibly the most of those who might otherwise steal. But they do not deter those who have mental disease, or deter them in a lessened degree, and they do not deter those of the next group of psychiatric cases, the so-called constitutional inferior.

Stearns states that psychiatric ignorance of any subject can be measured by the number of names it has acquired. The English invented the term, "moral imbecile" to explain those individuals who go through life uninfluenced by punishment or social disapproval,

and who do not, therefore, subordinate their egoism to the laws of society. Often mentally below par, they are not feeble-minded, and indeed may be of average, or even superior intelligence. The Germans changed the word to "psychopathic personality", and the Americans, to show their psychiatric insight, added a milestone to progress by coining the label "constitutional inferior." The fact is that here we tread a dangerous path, for it is difficult to separate out what is constitutional disease or defect in this condition from what is perhaps conveniently called acquired viciousness. The habitual criminal may be a constitutional inferior, but we get nowhere if we merely substitute one term for another. If a person from his earliest days lies continually and often fantastically, if he chooses deliberately, despite a normal environment and training, to shun work of a steady kind and chooses instead crime, if he becomes a drug habitué, and is subject to temperamental manifestatons of a bizarre kind, we need not absolve him from punishment as irresponsible, for we are not, as psychiatrists, at the place where our knowledge is definite concerning him. We may simply state that he lacks the social instinct, at least comparatively, and after his history has become that of a definite repeated offender, we may urge on society the need of permanent segregation. Jesse Murphy and Alfred Bartlett, to cite two notorious examples, could have been

so diagnosed at the age of twenty, and if they had then been segregated for good and all, the annals of crime would be minus many highway robberies and several murders. Here again the conception of limited responsibility does not carry with it the evasion of penalty, but instead, the idea of special treatment of the case, with probably permanent segregation.

Here I come to the crux of the psychiatric position toward responsibility and crime. Psychiatry stands for a comprehensive study of the individual delinquent, to use Healy's phrase, and it pays less attention to the crime. Law considers first the crime, and its attitude is necessary since the equal administration of justice somehow implies that the same crime shall have a similar punishment, and nothing so sets the community astir with resentment and suspicion as the notion that the law has ceased to be blind in its punishment. That in practice, one judge fines almost all alcoholics, another puts them on probation, and still another sends them to jail, does not alter the theory which the community clings to as the proper working principle for the law. But arson is not quite the same thing (Sullivan) in the case of the feebleminded boy who sets fire to see the excitement, as in the case of the business man who burns down his building to collect insurance. Moreover, it is in accordance with the history of the reaction to crime to individualize the study and treatment of the

offender. A primitive people, like a child, punishes the inanimate and the beast, as well as the human being. Dogs and horses have been tried in other days, and the insane and the feeble-minded have been knowingly put to death up to our own times. The growth of probation, the building of reformatories, the establishment of Juvenile Courts, are efforts on the part of the law to handle the offender in an individual way, and our contribution of lessened or absent responsibility is a further step on this historical course.

It is unfortunate that society has focused its attention on the psychiatrist and his value to the courts by his testimony in murder cases. After all, they are but a fragment of the cases where responsibility is an important issue, and while the law does not adopt the psychiatric attitude, yet in practice, the acceptance of a lower degree of murder as the verdict, brings it about in most doubtful cases that segregation and not execution takes place. It is a curious fact which one learns in studying the cases of murder in State Prison. a fact which I owe to Dr. A. Warren Stearns, that there are undoubtedly many cases where psychiatrists have declared a man sane when he was not, and almost none of the reverse. In other words, the clamor of the mob has reached the psychiatrist to influence his clinical judgment just as it reaches the district attorneys and the judges. But returning to the subject, it is in the mass of lesser crimes where psychiatric study ought to come into play, for it is in just these cases that lawyers seek to avoid any discussion of the mentality of their clients. A jail sentence sounds better to the lawyer whose client is on trial for burglary or arson than a protracted, perhaps permanent, stay in an insane hospital or a school for the feeble-minded. The psychiatric examination should come from society as a source of information which it needs in order to deal adequately, as well as justly, with the offender.

This means a new technique in the employment of the psychiatrist. While no one can deny the defendant the right to his own expert, the State, in the form of the Department of Mental Diseases, should study the accused, and the report should be given to the judge and the jury. On the stand he should be given a freer play in stating his conclusion and the basis for that opinion. Wherever possible, hospital observation should be utilized, since in a doubtful case an hour or two is not sufficient. Conflict with the rules of evidence is a matter for the lawyers to work out, but certainly a hypothetical question involving contradictions and painting a one-sided picture is no way to reach an honest conclusion and a fair statement, however much it may be necessary in present-day jurisprudence. which says that only the jury or the judge may pass on facts. That psychiatrists are themselves in part to

blame for much of the disrepute attending their appearance in court is, of course, known to all who realize that trial by combat, which is still the underlying principle of a trial in court, brings out combatative instincts, partisanship, mercenary motives, and all those attitudes which operate against candor and clinical judgment. The expert in court must at the present day stick closely to his medical attitude, must speak of mental disease and not of insanity, must fight for the right to use clinical criteria in establishing responsibility.

Highly to be commended is the present procedure in Massachusetts. In the first place, the Municipal Court of Boston has a well-organized psychiatric clinic to which are referred the problem cases, and a report is made to the Court, which is taken into account in the judge's action. More important still, whenever a prisoner is held for a felony, the Commission of Mental Diseases appoints two psychiatrists to examine the prisoner, and these examiners make a report to the Commission. This report is forwarded to the Court, and is accessible to the District Attorney and the counsel for defense. In this way, the battle of experts in major cases has almost entirely disappeared in the Massachusetts Courts, since a report of two impartial and state-sanctioned men is given great weight by a jury. Further, after a man is sentenced either to a jail or a State Prison, he is studied in order to deter-

mine what his mental status is independently of his legal or criminal status.

As one of those employed by the Commonwealth for this work, especially in relation, first, to the minor offenders who are sentenced to the jails and houses of correction, and, second, in relation to the men accused of murder awaiting trial, I believe that certain statements can be made with a fair degree of assurance.

Crime is a reaction between society and an individual, and both factors need intensive study. No psychiatric evaluation can do justice to the social factors, and no social investigation accounts for the individual factor. In some cases social factors are by far the most important, and the individual is more or less a sort of pawn, though of course moved in part by personal motives. In other cases, the individual factors, often psychiatric, are mainly involved in the crime, while the social factors are not of great importance.

Thus murders, excepting those which flow out of robbery, are usually individual matters. In many cases actual mental disease—delusions of persecution, delusions of infidelity, delusions of reference—is involved as the exciting cause. If a man sees people sneer at him, if he believes they poison him, or if he believes that his wife betrays him shamelessly in his own house and his own bed, then the murder flows

out of the insane idea, and the social factors are almost negligible. The reluctance of people to commit to an insane hospital a known insane man is, in my own experience, responsible for several shocking murders. Though feeble-mindedness in itself does not frequently lead to murder, feeble-mindedness plus sex impulse frequently does. The village fool hanging around the grocery store suddenly has his lust awakened by a pretty little girl, tracks her through the woods, and in his animal furor kills her.

Though the proportion of psychopathic individuals is highest in murder of all the crimes, the most of it is perpetrated by non-insane and non-feeble-minded persons. The great emotions are the sources of the greatest of crimes—the passions of the fight, the urge for revenge, jealousy, fear. The murder rate is highest where the code of private revenge for private wrong has not yet given way to the civilized code of community adjudication. Thus, it is highest in the United States, not in the foreign parts, as is so often asserted, but in the native American cities and communities, where the frontier tradition still holds sway.

Murder for profit is incidental to robbery. Robbers are rarely insane or feeble-minded—they constitute the prime puzzle of criminology, in that they are not necessarily of low-grade families or of defective groups. It is difficult to account for the crime history of the group of young men who became the Brigh-

ton Carbarn Bandits, since the intelligence of these offenders was at least average, and they had the ordinary social background of the second and third generation of Americans. One of them, at least, deserved the term "psychopathic personality" by the erratic, non-social reactions he showed from earliest days. But this does not explain his crimes, for erratic non-social reactions occur amongst divines as well as criminals.

When one examines the lower grade of criminals, those sent to jail for two months, or those sentenced to two years in a House of Correction, for alcoholism, petty stealing, bastardy, violating the liquor law, non-support of family, etc., one is impressed (and depressed) by a few outstanding phenomena:

Mental disease is not especially prevalent, hardly more, I think, than in the community as a whole.

Feeble-mindedness, while present, is not especially striking, and is mainly coincidental.

There is an appallingly low cultural level amongst the inmates of the jails. Perhaps only the ignorant get caught, but the ignorance is abyssmal. The vaguest knowledge of American history is found—if a man places George Washington and Abraham Lincoln correctly, I regard him as learned—the Ptolemaic view of astronomy, that the earth is larger than the sun, prevails—there is no interest in politics, sci-

ence, art, or even religion-a few vague phrases cover present-day information. The main literary diet consists of the scandal of the newspapers, even the sports are imperfectly and vaguely followed, and the lower order of magazines like "Flynn's Weekly", "I Confess", "True Stories". When a man reaches the level of the "Saturday Evening Post." I feel like calling him "brother". There are no readers at all of the "Atlantic Monthly," "New Republic," "Nation," "Independent," "Harpers," and the like, and no readers of the newer fiction. They are men and women who live in the narrowest egoism, without any knowledge or any interest in the great social, political, and scientific movements which reach into their lives. They have no trades, no defined purposes, no real ambitions, no declared ideals—hardly a true sentiment. The lowgrade criminal is a man of unorganized personality. or unorganized extroverted interests of narrow range. It may well be that the fault lies in a lack of real education, in a lack of organized training, in a laissez faire policy which punishes, but rarely seeks to reform.

Most of this type of crime is fundamentally a personality social problem, in which the psychiatrist can help, but which needs more teaching, the elimination of the street corner gang, the training for purpose, the help of the Big Brother, more boys' clubhouses, and better taste inculcated by better books, plays, movies,

in short, better entertainment. More certain punishment for crime and the removal of politics from police and judiciary would help in the cure, but other social measures and a better, more wisely organized society are necessary for prevention.

#### VII

One of the strangest things in the history of science is the rise into dominance of some scientific theory which becomes established as a dogma, checking the free growth of knowledge. It merely proves that scientists are human in that they fight and have their own intolerance. For it is the very keystone of scientific thought that any hypothesis is only a way of collecting and evaluating facts, and that every hypothesis is sooner or later destroyed by the facts it has helped bring to light. The progress of science is a succession of Spenserian tragedies—viz., a theory killed by a fact of its own genesis.

The orderly succession of the generations as it prevails in the higher forms of life is brought by the fertilization of a female cell, the ovum, by a male cell, the sperm. Since the two cells unite an equal portion of their heredity-bearing substance, the basic qualities of the male and female ancestors have, so to speak, an equal chance to be expressed in their descendant. Whether they are equally expressed is another matter, since in some qualities it has been shown that there is a rivalry for appearance, a struggle which is stated

by the fact that some qualities are dominant to others. So that the terms "dominant" and "recessive" imply that if individuals with different colors of eyes mate, one color or the other will tend to appear in the descendant and not a blend or half-way color. In certain simple qualities in plants and animals, the order of appearance can be predicted by a mathematical law called after its great discoverer the Mendelian law. Unfortunately the basic qualities in the higher animals, and especially in man, are too complex to be analyzed, and the Mendelian law has been applied to man in only a very few, and these mainly pathological characters.

When the human male seed, the sperm, fertilizes the human female egg, or ovum, an extraordinary, totally incomprehensible series of miracles occurs by which the resulting microscopic ovum starts growing, dividing, elaborating, building up tissues and organs, and evolving from an egg to a highly complex, sentient human being who, in the course of time, lives in a complex society. The union of this male and female cell is the source of the hereditary qualities of the new individual, and everything else that happens to this new bit of life is—Environment. Thus, the uterus of the mother is the first great direct environment of the child, and the air the mother breathes, the food she eats, the liquids she drinks, bring their environmental qualities to bear on the child as they circulate in the

mother's blood to the placental blood which nourishes the embryo. Whether the emotions the mother feels, the thoughts she thinks and, in general, what she mentally experiences has any play on the child within her, would be disdainfully answered, "No", by Science. But Science has no right to be categorical in the matter, for emotion is not alone a psychic event, but it is an important physical event as well. In any event, the mother and her environment play on the developing unborn child Things may happen to the mother which kill that child, others may occur which alter its development, at least for the worse, and it is not at all outside the bounds of theory that events may take place to alter that development for the better. So that at this stage, at any rate, heredity and environment have a close interplay; they are not the antagonists in the great world drama which they are so often depicted. Rather they are the great protagonists. capable of all kinds of interrelationship, of coöperation as well as of opposition. "You can't make a silk purse out of a sow's ear" expresses the fact that good original stuff is necessary, but you can spoil good silk by bad handling.

While I emphasize here the rôle of the environment in fostering the hereditary qualities, and even altering them at least in a quantitative way, I do not mean that the environment creates new qualities. The environment may kill an animal or alter its vigor and

that of its descendants, but it has not been observed to call forth new powers in any creature. From a theoretical point of view, I believe that new qualities are so called forth by a new shift of the environmental forces which living things have to meet, but no experimental proof of this is as yet forthcoming.

These remarks are introductory to the question of the inheritance of mental diseases. I shall consider the question under several headings, and because there can be no proof given in a short chapter, I shall simply state this—a good deal of personal research is, in the main, back of these statements, most of which has been published. Moreover, these statements are in sharp disagreement with much that appears in the medical and popular literature, but there is a very noticeable drift toward the point of view herein stated.

First, only a few of the major mental diseases discussed previously in this book are hereditary or, to use a more exact term, familial. The diseases caused by alcohol, syphilis, and by arterial changes in the brain, as well as many diseases not discussed, are environmental in origin, definitely caused by definite agents. True, some authors have believed that some predisposition existed, some weakness which permitted the alcohol, the syphilis, and the arterial disease to produce their dire results. If this predisposition exists, it has never been proven, and so may be dismissed. The trouble with the man who becomes mentally sick

through the use of alcohol disappears when he stops using alcohol, and if we could completely cure syphilis, the people who now develop general paresis would, so far as we know, remain well.

Just two important psychoses run in families. is true that there are other, rather rare mental diseases which also occur in families). There are dementia præcox (the disease which starts, usually, early in life and progresses throughout life) and manic depressive psychosis (the one which is periodic and is marked by changes in mood, depression and exaltation). The latter is by far the more likely to appear in several members of a generation and to appear in more than one generation. But many cases of even these diseases appear as isolated characteristics of one individual. and cannot be linked up with mental disease of the family, or appear without any hereditary linking up which is worthy of the name. For you can easily and always find some peculiarity of character and temperament in any family, if you look with zealous eye. Just listen to the talk about any family you know, or look critically at yourself.

Further, very few cases are reported where mental disease of this type ran for many generations. A few cases of three-generation disease are recorded, only one or two where four generations were mentally sick. It appears that mental disease, like physical disease, either destroys the stock which it attacks, or there is

final recovery. The destruction of the stock comes through the fact that the mentally sick do not marry in the same ratio as the rest of the population, and, further, early incarceration in a hospital prevents marriage and reproduction. We do not know what causes recovery—presumably the mingling of family lines through marriage and sexual reproduction is responsible.

Concerning the minor mental diseases, we can say nothing definite in regard to heredity. What is often called heredity in these matters is merely the bad example—a neurotic mother may well have a neurotic child, if only through the training she gives that child. Yet, one so often sees sturdy ancestors, stolid and hardy, giving rise to tense, hyperæsthetic, neurotic descendants, that one feels it is an altered environment and training which has brought about the change. There is a heredity in temperament, but the environment in its forms of education, training, diet, climate. and special circumstance, plays so huge a rôle that one cannot say which of the two is at work. I would not advise two neurotic people to marry, neither would I advise against it merely on the grounds of the heredity of the offspring. In the first place, it would probably be an unhappy marriage, and, in the second place, the children would have a double dose of bad example.

I come now to a subject which we have not as yet

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discussed, namely feeble-mindedness and its heredity. The study of feeble-mindedness suffers from the same difficulties that beset the study of the insanities, namely that conditions which are essentially different are linked together under one name. There are many varieties of feeble-mindedness, and these have only the more or less incidental quality of low intelligence in common. It is not my purpose to discuss the causes or symptoms of feeble-mindedness with any detail. Certain important points may be of interest to the general reader.

In the first place, judged by the so-called intelligence tests (which are really "knowledge" tests and cannot measure innate capacity except indirectly) the "average" intelligence, or the intelligence of the run of men and women, is surprisingly low. Very few people, comparatively speaking, have any real interest in matters beyond the immediate concerns of their own lives, or have any intellectual interests in life at all. Putting it more concretely, each of the great mass of mankind leads a parochial existence, deeply absorbed in his own problems of livelihood, sex, and pleasure; he reads but little beyond the innately interesting things, and avoids real mental exertion; he forgets readily the fragments of the great body of culture which reached him in school and which bob up now and then in his newspaper and magazine. He is only vaguely conscious of the great advances which

take place in human thought, though he soon becomes keenly aware of the changes which material advances bring into his life; he accepts, without understanding their evolution, the mechanical improvements, the comforts, the surgical and medical techniques of his times. Judged by the psychological "age" tests, the average man is not of high grade mentally, reaching somewhere between 14.5 and 15 years mentally. But these tests are after all misnamed, if the age part is taken seriously. The average adult may rank lower in the tests than a bright child, but he ranks much higher in qualities that tests cannot evaluate—experience, in life, sober judgment, special efficiency, etc.

Books have been written on the menace of the feeble-minded. It is alleged that they are the criminals and the prostitutes of the land, and their great prolificity makes them the potential population of the world, if one theory or another were not done to them. It is "proved" that their royal families, the Jukes, Kalikaks, Ishmaels, Nams, are the chief reasons for the high cost of living, and the normal folk slave to build prisons, feeble-minded schools, hospitals, courts, poor farms, and the like, for these people and their descendants. Now the Jukes, the Kalikaks, etc., are bad enough, but it has not been proven that they are really feeble-minded, and it is not true that even if they are feeble-minded, they are typical of the bulk of cases of feeble-mindedness.

In the first place, the most of crime is carried on by non-feeble-minded people, and feeble-mindedness is probably only slightly more common amongst the jail population than amongst the population of the social class from which that jail population comes. Crime is a social problem fundamentally, and not to be solved by passing it off on the low intelligence of the criminals. As a matter of fact, of the feeble-minded discharged from the Walter E. Fernald School for the Feeble-minded at Waverley, the bulk did well, and in no sense contributed to delinquency in any disproportionate manner. And what has been said of crime applies to prostitution, with this difference, that it is likely, though by no means proved, that the prostitutes are of somewhat lower intelligence than the bulk of the population.

As to the prolificity of the feeble-minded, the fact is that where the known feeble-minded have been discharged from institutions and have married, their birth rate has not at all been remarkable. Studies made by Dr. H. B. Elkind and myself show that the birth rate of the families from which came the inmates of the two great schools for the feeble-minded at Waverly and Whentham, Massachusetts, have a birth rate very slightly, if at all, greater than the general population of Massachusetts. As a matter of fact, wherever there is a low cultural level, or primitive or rural conditions, there is a high birth rate which drops with

the "knowing how" of birth control, late marriages, feminization, and the cultural-social conditions of modern civilization. Studies made by a group of investigators under my own direction, and for the Commonwealth of Massachusetts, show further:

First, that feeble-mindedness is not to be linked up hereditarily with the other mental diseases. Thus, if a father has manic depressive insanity, dementia præcox, or some other psychosis, and his son or daughter is feeble-minded, there is no known hereditary bond between the two states. This is in direct contradiction to the generally expressed opinion which links up in one hereditary chain all the mental diseases, feeble-mindedness, epilepsy, crime, etc., which assumes what it ought to prove, and which was born in the haze of nescience which favors all great generalizations about human problems.

Second, that such families as the Jukes, Kallikaks, Nams, Tribes of Ishmaels, are not representative of feeble-mindedness, if we may judge by our studies of some 860 families in Massachusetts. There are families with a good deal of feeble-mindedness in one or two generations, but some of their collaterals, their cousins, uncles and aunts, to say nothing of the wider ranges, may be, and often are all right and correspond to good social groups. We found nothing like the prostitution, crime, and general unfitness recorded in these families. Elsewhere, I have criticized the totally

indiscriminate way in which low cultural level has been called feeble-mindedness in the case of these families, and the surprisingly omniscient way in which the field workers pass judgment on the dead as well as the quick, as to mentality, morals, disease, and disposition. Personally, I find it hard to evaluate individuals after a close study and after a long acquaint-ance with mental and physical disease.

Certain phases of feeble-mindedness have nothing to do with heredity, and represent unknown disease states, others seem to represent that fluctuation downward in mental qualities seen in all other biological qualities. In some cases this is sporadic in a group, in other cases it is the general state of a family. That is, what we call heredity does play an important rôle in feeble-mindedness, but by no means the rôle usually ascribed to it. Much of feeble-mindedness is environmental in origin, much is hereditary, but the most is of unknown origin, and may represent the inexplainable, downward movement of intelligence, just as genius represents its inexplainable upward movement.

In an ideal state, the mentality of those entering matrimony would be studied, and it would be prohibited to the really feeble-minded (not to the merely ignorant or illiterate) and to those who have been insane. Whether this would do any good or not, is another matter, for the sex impulses have a way of evading mere laws. Sexual bootleggers might appear,

to bring about the union of those whom the law shut out of relationship. And sterilization, which is now a law in many states, is never enforced to any extent which would alter the situation.

Eugenics is a legitimate and noble effort of the human being to improve the physique and the mentality of the race. But it needs research more than legislation, research carried on without prejudice and preconceived opinion. It does not yet need publicity so much as it needs scientists and scientific work. Can one safely say this in view of the huge reputation of the men who publish on eugenics and who meet in great international congresses? Yes, for a stream can rise no higher than its source, and the eugenics which deals with mental diseases, feeble-mindedness, epilepsy, etc., can rise no higher than the psychiatric knowledge which is its source. As a psychiatrist, I can say, with no suspicion of being hostile to the work most dear to my heart, that we are still far away from real understanding of the bulk of mental diseases and of feeble-mindedness, and no amount of statistical evaluation of improper data will bring us light. Dogma so arises, dogma out of place in science.

Meanwhile, we know that certain mental diseases, manic depressive psychosis and dementia præcox, run in families, and that a certain proportion of recognizable types of feeble-mindedness persist for more than one generation. Sterilization of those individuals who

leave institutions and who are members of hereditary families might well be instituted, but the difficulties of enforcement and the obvious injustice of discriminating against the institutional inmates, leaving those who never reach institutions unmutilated, is against the spirit of our laws and our people.

On the other hand, the evidence is piling up that environmental conditions can produce alterations which, if they are not truly hereditary, persist in the descendants for several generations. In fact, it is possible and plausible that what we call heredity in the case of abnormal mentality of all sorts may be merely persistent injury, lasting two or more genera-The dogma that the environment cannot change heredity is not only theoretically and logically impossible, but facts are accumulating to show that what happens to the individual through his environment, using that term in its widest sense, may, and does, alter the nature of his descendants. Rats grow bigger and better if better cared for, guinea pigs deteriorate under abnormal conditions, and mankind itself, with its slums, epidemics, and degrading poverty, has created the conditions which produce at least some of its defective individuals.

Science may yet reach the phase where the separation of heredity and environment will seem highly artificial. The germplasm is a stable part of the organism, but after all it is only the tissue of ovary

and testicle, and not a hidden, inaccessible part of the organism. It is bathed in the same blood and visited by the same agents, for good or bad, which visit the other tissues. The individual is not really isolated from the environment; the environment flows in and out of him unceasingly, breaking him down, building him up. In the shape of oxygen, it is taken in eighteen times a minute, penetrates him to the remotest part, explodes his tissues, and is then thrown out. In the shape of food and water, the environment builds itself up as the colloids of his very interesting chemistry, and periodically is thrown out as fæces and urine. All the great chemical substances of the body have cycles within and without the individual, as Henderson has so well shown. In recent years, the light of the sun, which has for ages been recognized as the source of our energies by bathing us in its warmth, has become known as actively penetrative as well, and some of its rays determine the way calcium salts build up our bones. In these and other ways, even our physical individuality is a delusion. The environment continually bombards and penetrates us, and we are mere thickened parts of that environment. We can easily conceive of environmental forces making for eugenics, just as we can easily conceive of other environmental factors making for the reverse.

#### VIII

A program of mental hygiene is an ambitious, if not presumptuous, undertaking at a time when psychologists are divided up into more or less hostile camps, and when psychiatrists have not by any means solved the underlying causes of many of the mental diseases. The riddle of personality and the growth of character still await great scientific discoveries, and the revolt against conventions which prevails with its Menckens versus its Babbitts, shows that we are not even anywhere near united in what we want of the human being.

Still, with all the shouting and thundering, despite "advanced" literature and picaresque stories, we know we do not want insanity, feeble-mindedness, nervousness, and criminality; we know we want intelligent people, kindly coöperative, and reasonably happy, picking out life purposes and, to some extent, fulfilling them, gratifying their own instinctive urges with proper regard for the welfare of society, not over inhibited, but certainly not anarchistic. We may favor light wines and beers, but we do not like alcoholism; we may be disgusted by prudery, but we must

not achieve pruriency. Self-control is no artificial thing, but has grown up out of the needs of the race and the individual, and is the hall mark of the strong.

That part of the program of mental hygiene which seeks the lessening of mental diseases will seek to do away with those factors like alcoholism, syphilis, and infections which are responsible for so large a proportion of the insanities. This is, in part, a great medical program, and, in larger part, a social program. In part, it depends upon research showing the causes of alcoholism, in part, it depends upon finding more efficient treatment of syphilis and infections. This is difficult enough, but it is less difficult than the social part of the program. For social customs of immemorial antiquity are behind alcoholism and prostitution, and the most intricate knot has been tied in civilization by the powerful, instinctive and cultural forces back of these matters. Yet, we need not despair, for education, new social conditions, and new social viewpoints have a way of changing over society. Witness new and old Japan, new and old Russia-perhaps more pertinently, witness the difference between an immigrant group in the United States and the first and second generations of their descendants. In fact, witness the difference between any two modern generations.

In so far as the hereditary or familial diseases are concerned, we need much more light before we can act efficiently or whole-heartedly. Eugenic laws would be of some value, and eugenic education has not yet, been sufficiently promoted. Sterilization laws are theoretically indicated, but early segregation is more feasible and more in accordance with the public attitudes.

When we turn to normal mental hygiene, i.e. a program for promoting the development of intelligence, personality and character, thus increasing the value of each individual, our program becomes so diffuse as to threaten its force. A man would need to be a new Plato and write a new republic to do justice to the situation. Indeed, if he came no nearer practical measures than did the great Greek, he ought better have spared paper and ink.

Normal mental hygiene is mostly concerned with the child, since the adult is already pathological with incrusted habits of mind and body. The basis of training and teaching is the physical health, since on that, as a general proposition, rests endurance, mood, and energy. In very earliest childhood, the infant is to be regarded mainly from the standpoint of nutrition and rest, and his whole life should be regulated so that in a quiet existence, he eats and sleeps well, and is bathed daily in the fresh sunlight from which flows the energy of life, and which regulates normal growth and development. All other teaching and training is not only superfluous, but it is mischievous.

With the early months of infancy past, human life passes the helpless sessile stage, and becomes active. Experience can now be sought, for walking allows the will to operate in its quest for experience and the satisfaction of desire. With the advent of talking, the whole heritage of the race, with the accumulated experience in its forms of knowledge, wisdom, discipline, taboo, injunction, in a word, the good and the bad of life, becomes directly accessible to the child. Man in all his potentiality becomes expressed in the form of each child, with this proviso, however, that each child's potentiality differs from every other child, and each set of influences operating on each child is different from all other sets of influences.

An important phase of mental hygiene enters here. As Jung has emphasized, there are two types of interest, one directed to the outside world in all its forms, or what is known as extroversion, and the other, a type of interest directed toward the self in all its manifestations, called introversion. A happy blend of character means direct, abiding, intelligent interest in the outside world, combined with a similar attitude toward the self. On the whole, the more healthy and effectual personalities tend to be extroverted, while the very brilliant and creative personalities of certain types tend to be introverted. As before stated, introversion is found more commonly in mental disease than extroversion, whereas in crime, the defects of extroversion

are more readily seen; that is the criminal lacks insight into himself and pays but little attention to the inner self which guides conduct. Under sickness, disappointment, and with the advent of years themselves. character tends to grow more introverted, which is an indication of its closer relationship to pathological states. This bears on the education of the child in this wise, that he must be allowed to gather experience from the outside world and to play with the things that interest him. Too many injunctions against his innate curiosity about the fascinating new world into which he comes must not be brought to bear upon and crush his extroverted tendencies. He must be allowed to have that contact with other children which is his first plunge into social relationships. No matter whether the child next door is of different race, of a different color, or whether he uses naughty words and has unæsthetic habits, he is better than no company. The solitary child does not learn the art of social relationships, the art of adapting himself to his fellows, and misses, therefore, the most important education in life, or has to acquire it at a later date and under grave disadvantages.

This means also that the family life must be made up of at least two components, first, guidance and discipline, so as to bring into the child's life early the experience in customs and morals of his group, and secondly, freedom and individuality growth, so that

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his own natural tendencies in so far as they are good. may grow in order that he may learn to express his own will without too great a dominance on the part of his elders. The Freudians are right in so far as they trace a good deal of the pathology of life to familial situations, to father and to mother. They are wrong, I believe, when they trace these to crude and direct sexual relationships. It is more in the thwarting of personality, in the abberant trends, unsocial existence, atrophied curiosities, and delayed maturity which family life so often causes that the danger of the home exists. While the home is the keystone of our modern society, and unquestionably operates for good, it also does immeasurable harm to some personalities. The point is that it does not seem entirely necessary that the evil results shall follow. What is essential is a thing difficult to reach because it requires intelligence and dispassionate judgment, namely an individual understanding of the individual child, and a resulting training and discipline which will permit his personal potentialities to reach a functon which will at the same time be useful to society.

It is idle to say that discipline, training, and the like, make Babbitts. Perhaps they do, but it is certain that insufficient discipline and training create criminals or futile persons completely out of joint with their environment. Occasionally a genius gets along without companionship, training, and guidance, or is

harmed by such influences. We need, of course, genius, but the average man needs stability in character and adjustability of personality for his own welfare and for the preservation of social existence.

I believe that mental hygiene must also take into account as a measure for the development of personality and the avoidance of mental disorder, the proper use of blame and punishment, reward and praise. I do not believe that any one is injured by the knowledge that certain lines of conduct bring with them pain and punishment: nor do I believe that good, energetic efforts can be brought about in the mass of children or of adults without praise and reward. These two sets of reins guide us to social conduct. They have their perils; they do harm when improperly used, but so do food, air and sunshine, so do all the good things of In medias res still remains the golden rule, life. whether applied to eating and drinking, or to the training of childhood.

Nevertheless, fear in its pathological forms must be avoided in the development of childhood. Children must be taught courage by example, by precept, and by every means possible. Fear, while it is responsible for many of the good things of life in that it has stimulated mankind in his war against natural destructive forces, also paralyzes and disorganizes. The child must be taught endurance, and he can only gain that endurance by enduring. I am, therefore, very

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skeptical of the efforts to make scholarship too interesting, so that the child comes to believe that learning can be made easy. There is a peril in the merely interesting because it reflects itself in superficiality and lack of mental sturdiness. When the child is ten or twelve, he should be trained to work at disagreeable subjects, to plow his way through the difficult phases of learning, not to give up at the first signs of fatigue, but to stick to a task irrespective of the milder symptoms of boredom and weariness. This is as true of the mental life as of the physical. No man became a great runner who stopped when the first wind went; he kept running until there occurred the miracle of the second wind. Muscles are not developed to their height of power unless they are strained now and then, unless they are used frequently to the limit of their contractility. Training a child to endurance need not be inhuman and reach the extravagances of Spartan discipline. Life can never be made anything than a burden to the soft and easily fatigued. Strength, courage, and endurance are the sine qua non of happiness and achievement.

This brings me to another phase of child training. In considering the minor mental diseases, we spoke of the liability to disgust of the hyperæsthetic. Those who are trained that everything must be just so, and to whom trifles mean much, will pass through life with their grain continually rubbed the wrong way.

We need, of course, the fine-grained people, and they will always exist amongst us; they will create beautiful things, they will be our artists, our poets, and our musicians. This is all very good, but even they will be no worse off for a calmer perspective and lesser liability to disgust. And for the average man or woman, working out his life under average circumstances, continually seeking pleasure, excitement, and achievement, it is a great handicap to be built too finely, and to respond too vigorously to the minor disagreeables of existence. Therefore, in the training of the child, the avoidance of hyperæstheticism must become incorporated into his character. A very good eleventh commandment would be, "Thou shalt not be too fussy."

The subject unfolds itself almost to infinity, but the publishers have limited the length of the book, and properly. One gets back to much old wisdom, and pours it into new bottles, in writing of the human being and his development. The old Greek philosophers might be represented in a formula which would include, as well, a fair share of the Hebrew prophets, mingled equally with the philosophy of the Stoics and the Epicureans. To this mixture, add a generous measure of sound physical hygiene, pour in cautiously some of the newer psychology of Freud, Jung, and Adler, and you have a mental hygiene of value, if you don't forget the supreme ingredient of common sense.